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THE

ART OF MEMORY,

REDUCED TO A

Systematic Arrangement.

EXEMPLIFIED UNDER

THE TWO LEADING PRINCIPLES,

LOCALITY AND ASSOCIATION.

WITH A SPECIMEN OF A

MNEMONIC DICTIONARY.

EMBELLISHED WITH ENGRAVINGS.

BY J. R. MURDEN.

NEW-YORK:

PRINTED FOR THE AUTHOR, BY J. T. MURDEN, NO. 110 PEARL-STREET.

1818.

Till 5545. 171



Fratuate sonor & duration

Southern District of New-York, ss.

BEIT REMEMBERED, that on the twenty-second day of August, in the forty-third year of the Independence of the United States of America, JOSEPH R. MURDEN, of the said district, hath deposited in this office the title of a book, the right whereof he claims as Author, in the words following, to wit:

"The Art of Memory, reduced to a systematic Arrangement, exemplified under the two leading principles, Locality and Association. With a specimen of a Mnemonic Dictionary. Embellished with engravings. By J. L. Murden."

In conformity to an act of the Congress of the United States, entitled, "An act for the encouragement of learning, by securing the copies of maps, charts, and books, to the authors and proprietors of such copies, during the times therein mentioned;" and also of an act, entitled, "An act, supplementary to an act, entitled an act for the encouragement of learning, by securing the copies of maps, charts, and books, to the authors and proprietors of such copies, during the times therein mentioned, and extending the benefits thereof to the arts of designing, engraving, and etching historical and other prints."

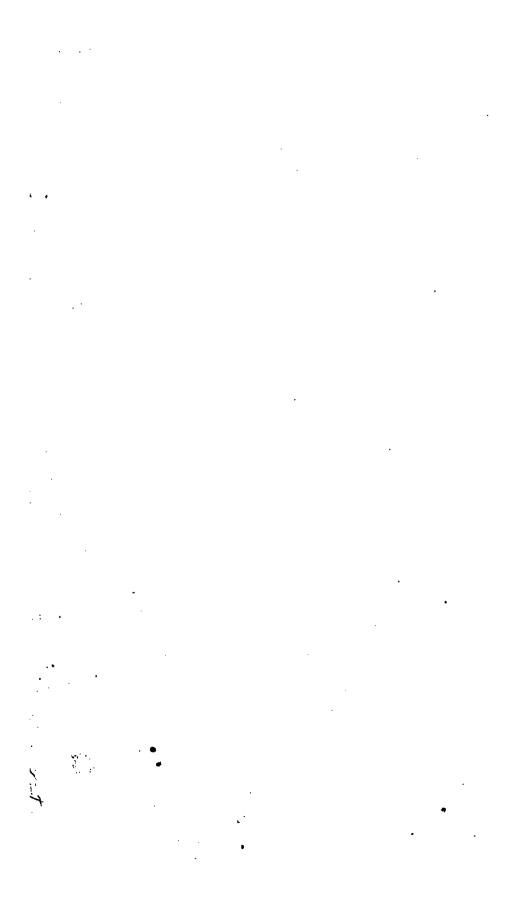
JAMES DILL.

Clerk of the Southern District of New-York.

der.

ADVERTISEMENT.

THE question that so frequently has been asked the Author, by several gentlemen who honored him with their attendance at his Lectures, in the winters of 1814, and 1815, " Do you mean to have your System printed?" is at last answered in the affirmative by this publication. He does not mean, however, to advert to the common place apology of, " The earnest solicitations of friends has induced me to publish;" for he never was solicited-neither does he think any apology necessary as regards his motives for publishing, though some may be as it respects the execution. Being well convinced of the utility of the system, he will not have his conscience charged with obtruding upon the public, a work unworthy notice. His only fear, arises from a consciousness of the difficulty there is in explaining in print, satisfactorily, that which in a course of Lectures could be rendered plain and obvious; -so far is oral and visual instruction superior to the dry study of the closet. It has been his aim, however, 1st. To be as perspicuous as the nature of the subject would admit without tautology, and, 2d. To introduce nothing extraneous in order to swell out the volume, (as he is no book maker.) A specimen of a Mnemonic Dictionary is added, which will be found useful to those already acquainted with the system. He has likewise given a few examples of Association, merely for example sake, and but few; being thoroughly convinced, that in order to render the system really efficacious, the student should form his own associations, for the obvious reason, that as they depend wholly upon fancy, those make the strongest impression which arise from our own There is one hint however which he will suggest, that this System of Memory ought not to be applied to trivial things, or to matters of fact, unless the truth or certainty of the thing is established, because if once committed to memory through this medium, they make such an indelible impression as not easily to be effaced. It may be necessary to observe, that it is not pretended, by the help of this system, to give a memory where nature has denied one, but merely to strengthen and assist it.



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INTRODUCTION.

To enter gravely into an argument to prove the advantages resulting from the possession of a retentive memory, would be as needless, and as great an insult upon the understanding, as an attempt to prove that the Sun gives light;—they are both self-evident propositions; yet, though both facts are admitted as truths, the effective cause has puzzled the most acute metaphysical philosophers.

Various have been the opinions advanced on the causes of memory.—How it is produced—in what part of the human frame it is lodged—how its functions are accelerated or suspended, &c. &c. are subjects which have been agitated and disputed, but never so satisfactorily answered as to produce the desirable effect of transforming a bad into a good one. That the faculty which is commonly known by the name of Memory exists is incontrovertible; that it is capable of improvement is admissible, and, therefore, the object of our inquiry is, which are the best means? To this question many answers have and may be given. Temperance, of every kind, unquestionably is the most efficacious negative means; and possibly there may be some positive good arise from the use of various simples which have been found as strengtheners of the brain, although that idea is much doubted, and, indeed, by

many positively denied, nay, the contrary affirmed, inasmuch as, like other tonics, by a too frequent use of them they not only lose their effect, but become pernicious. It is said of Daniel Heinsius that by using such medicinal remedies as had been prescribed for strengthening his memory, he found it at last so much impaired, that he could not remember the names of his domestics, nay, further, that in the issue he forgot his own! However that may or may not be an exaggeration, such remedies are very justly suspected.

Of all natural means by which the memory may be strengthened, the best is most unquestionably the practice of habituating the mind to recollection. It is said of Voltaire, that when a boy, he had a very bad memory, and he remedied this defect by the practice of multiplying by the head, till at last he arrived to such perfection that he could produce the product of two factors, each containing twelve places of figures. Thus by degrees charging the mind with trifles at first, would enable it, at length, to bear almost any burden. We know that by suffering any of our limbs or joints to remain in a state of inactivity a considerable length of time, it would endanger the use of them altogether; on the contrary, the mere we accustom ourselves to the exercise of walking, with the more ease is that exercise performed;—the more our arms are used in athletic exercises, the stronger and fuller of vigour and nerve they become. It is an acknowledged and notorious fact, that the faculties of the soul may become deadened, if not wholly lost, for want of exercise, and amongst the rest that most valuable of them all, the MEMORY. We say the most valuable,

because all the others are useless without it; since it is that alone which enriches the mind, by preserving whatever our researches after knowledge may procure. If the comparison may be allowed, Memory is to the intellectual what Economy is to the moral world; since without a proportionate share of economy, industry would fail of accomplishing its object. so, without Memory, the most laborious study (if, indeed, it would be possible to study) would be nugatory; and might we not justly fear that the beneficent Author of our existence. would deprive us altogether of such precious gifts if we so far abused them as to neglect their use? Thus far is in the power of every being possessed of reason, but in order to further that desirable acquisition, a retentive memory, there have been many artificial modes invented and resorted to. Mnemonics (a systematic memory) was a favourite study of the ancient Greeks and Romans, and those who were the most celebrated for their tenacity of memory acknowledged they were indebted to art for their proficiency; amongst whom might be mentioned Julius Cæsar, Crassus, Seneca, and Cicero, the latter of whom, in a letter to his friend Hortensius, mentions it particularly as being originally the invention of Simonides, who (as the legend runs) being hired by Scopas, a rich Thessalian nobleman, to write a panegyric on him, took the liberty to introduce Castor and Pollux into his poem, at which the avaricious Scopas, when Simonides came to the feast to recite his verses, wanted to abridge the price he had agreed to give the poet, saying, 'as the twin brothers had shared in the praise, they ought to share in the payment." after dinner, two young men were said to come on horseback

Pollux, and as a punishment to Scopas for his impiety and avarice, they caused the banqueting hall to fall in and bury him and his guests. When their friends came to recover them for interment, they were so disfigured that they could not be distinguished, but Simonides recollecting the place where each person sat, named them one after the other, "which made known," says Cicero, "that order is the principal thing in helping the memory." "Medallists," says Mr. Addison, "upon the first naming of an emperor, will immediately tell you his age, family, and life. To remember where he enters in the succession, they only consider in what part of the cabinet his medals lie, and by running over in their thoughts such a particular drawer, will give you an account of all the remarkable parts of his reign."

From the year 1325 to 1765 there were not less than 59 treatises published on the art of assisting memory, but none that deserved the name of System appeared till the year 1813, when a work was written on the subject by a pupil of Von Feneigle, a native of Baden, in Switzerland, and that work developed a plan which, however deficient in arrangement and decried by reviewers, laid the foundation of the present System, and this, although (like every other human invention) certainly admitting of much improvement, made a convert of its chief opponent, in England.* In fine, from every investigation that has been made as to the nature or properties

^{*} Rev. Robert Hall, of Cambridge.

of Memory, it has been found, that Locality and Association are the best channels of reminiscence, and that system the most serviceable which brings those principles into the most extensive operation. This nature teaches; in proof of which, we need but appeal to any one who is in the habit of tracing the operations of the mind, and the following facts will be admitted:—1st. To recollect a circumstance, we endeavour to call to mind the place where it happened, or vice versa. 2d. Association of ideas is so interwoven with our nature, that it is impossible to recollect any thing without it, whether we are sensible of it or no. Upon these two principles, then, we shall proceed, and therefore it is in fact only reducing to a systematic arrangement what we are daily and hourly in the habit of practising.

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ART OF MEMORY, &c.

SECTION I.

LOCALITY.

Amongst all the aids for assisting the memory, there is not one where the projector has not fixed upon some method for localizing or placing his ideas upon a particular spot or place. Thus, the rafters of a roof, numbered in rotation, the corners of a chamber, with the fire-places, doors, pictures, and various pieces of furniture, have been chosen as the depositories. Others, again, have chosen a naked room, and imagined an M marked upon each wall, and upon each stroke of the letter fixed certain symbols which would bring to their recollection what they wished to remember. But all these being devoid of order and arrangement, lose their effect, and for want of a regular and fixed method, prove too great a bur-

. .

den on the mind. It is presumed, and indeed, upon pretty extensive experiments proved, that the plan here proposed will obviate this difficulty, and moreover, be found easy of attainment.

Imagine yourself in the room with which you are best acquainted, and in the place in which you usually sit; -divide the floor into nine compartments of equal size, by striking two imaginary lines horizontally, and two perpendicular ones, from your seat; place the nine digits in these squares, beginning at your left hand upper corner; of course, you will find 1-2-3 in the first, 4-5-6 in the second, and 7-8-9 in the third, or bottom row. To assist your recollection where these figures are, you will observe, that if two lines were drawn diagonally, from corner to corner, of the floor, it would intersect all the odd figures, viz. 1-5-9 will be cut by the one and 3-5-7 by the other line; consequently, all the even numbers, as 2-4-6 and 8, will be found in the opposite squares.

It would be well before another line is read, for the student to localize these digits perfectly in his mind, so that without any effort of memory, but merely mechanically, he should be enabled to fix, at once, upon any one that occurred to his imagination.

Having so far progressed, it would surely be no very great stretch of mental power to place the same figures, precisely in the same situation, on each of the walls, allowing the room to consist of four.—We now proceed to number the walls, but previously it must be observed, that through the whole of the mnemonic system, the floor, and walls, with a part of the ceiling annexed to each wall, (as will presently be shown,) are denominated STRIPES. The first stripe, then, is the wall upon your left hand, the second stripe faces you, the third is the right hand wall, and the fourth behind your chair. Hence, by simply observing the following rule, viz. place the number of the stripe on the left hand, before all the digits alalready fixed on the walls, and you will have numbers 11-12-13 in the top row of the first stripe, 14-15-16 in the middle row, and 17-18-19 in the bottom; 21-22-23 top row facing you, 24-25-26 in the middle, and 2728—29 at the bottom; 31—32—33 will be in the top row, on the right hand or third stripe, and 34—35—36 in the middle; therefore 37—38—39 will be at the bottom. Of course, according to this arrangement, 41—42—43 will occupy the top line on the wall at your back, and 44—45—46 in the middle, while 47—48—49 will be found at the bottom of the same stripe. Hence you perceive that the left hand figure gives the number of the stripe, and the right hand figure, or unit's place, the spot on the wall where that number stands, which exactly corresponds with the floor stripe.

It will be observable that all the decimal places are wanting, viz. 10—20—30—40 and 50. In order to supply these deficiencies, divide the ceiling into nine parts, as the floor and walls are, then place 10 in the square immediately over 12, on the first wall—20 on the ceiling over 22, on the second wall—30 on the ceiling over 32, on the third wall—40 on the ceiling over 42, on the fourth wall, and 50 in the centre of the ceiling. You have now the number complete. It is observable that 5 will always be found in the centre,

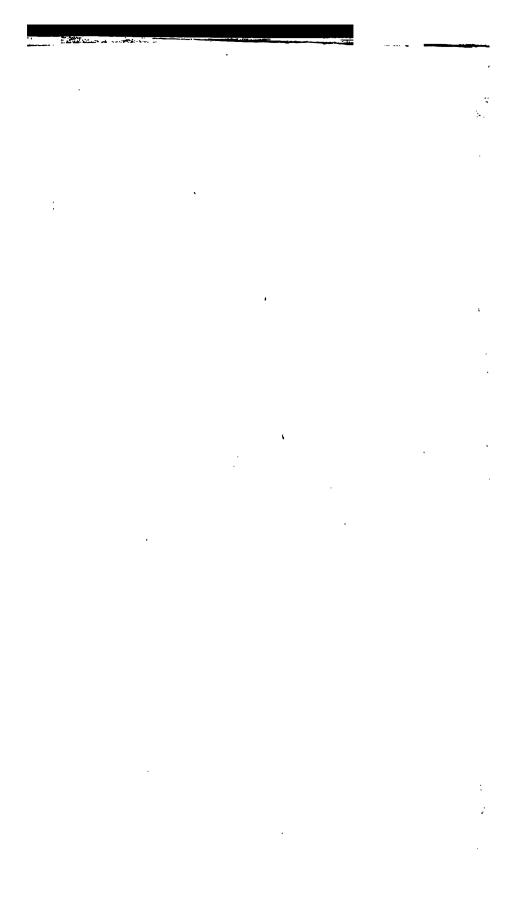


Fig. 3.
HISTORICAL WALL Nº:

	10			20			3
11	12	13	21	22	23	31	3
14	15	16	24	25	26	34	3
17	18	19	27	28	29	37	3

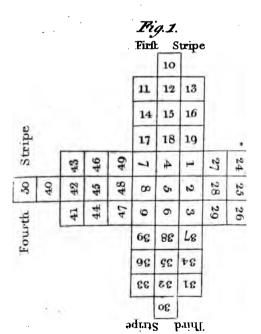
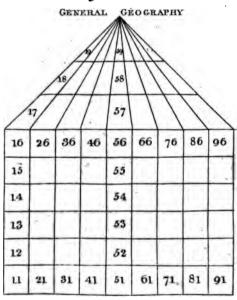


Plate.1.

MNEMONIC TABLET.

	Religion	19	29	39	49	59	69	79	89	99
•	Revenue	18	28	38	48	<i>5</i> 8	68	78	88	98
	Commerce	17	27	37	47	57	67	77	87	97
j	Army & Navy	16	26	36	46	<i>5</i> 6	66	76	86	9€
	Government	15	25	35	45	55	65	75	85	9£
	Arts&Sciences	14	24	34	44	54	64	74	84	9.
	Produce	13	23	33	43	53	63	73	83	9:
	Population	12	22	32	42	52	62	72	82	9
	Territory	11	21	31	41	51	61	71	81	9
1	7									

Fig. 2.



Pubd Jany 17th 1814. by J. R. Murden.

Fig. 7.
DAILY OCCUR

	30		10.7	60			90	
1	2	3	31	32	33	61	62	63
4	5	6	34	35	36	64	65	66
7	8	9	37	38	39	67	68	69
	10			40			70	
11	12	13	41	42	43	71	72	73
14	15	16	44	45	46	74	75	76
17	18	19	47	48	49	77	78	79
	20			50			80	
21	22	23	51	52	53	81	82	83
24	25	26	54	55	56	84	85	86
27	28	29	57	58	59	87	88	89
	31			61			91	A

MODERN HISTORY

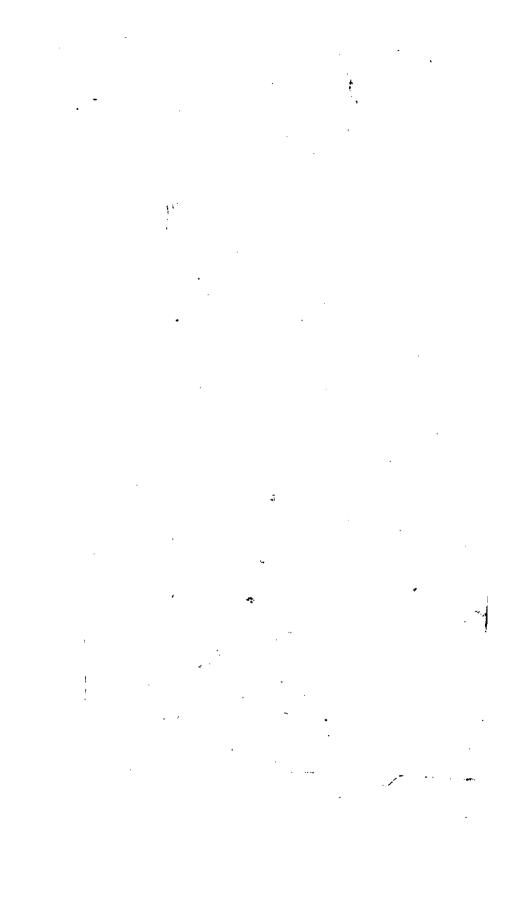
	0		F	19.	1.	
1	2	3		n	12	13
4	5	6	10	14	15	16
7	8	9		17	18	19

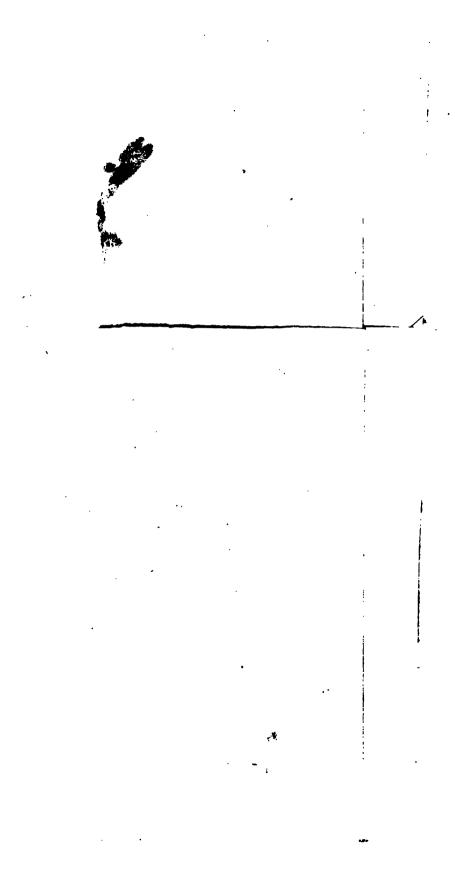
ANTIENT HISTORY

	0		F
1	2	3	
4	5	6	
7	8	9	
	3004		٠.

for instance, 5 in the centre of the floor stripe, 15 in the centre of the first, 25 in the centre of the second, 35 in the centre of the third, and 45 in the centre of the fourth stripe, while 50 is in the centre of the ceiling. Plate First, fig. 1. exhibits a room divided according to this method, where it will be observed, that the centre square represents the floor stripe, when, by turning the plate so that the nine digits there placed shall be in the proper position for reading, the stripes which represent the walls will be found numbered as has been described, while the little straps, upon which the decimals are placed, make up the ceiling. By carefully cutting round the out lines with the point of a penknife, and raising the walls from their prostrate condition, and gently bending over the squares, or straps, to form the ceiling, the room will be complete; and could that be made large enough, or a man be found small enough to be placed in it, he might see realized what has been pointed out as divided and numbered. Exercise yourself until the places and numbers are so familiar that one glance of thought will bring any of them, without regard to order, to your "mind's eye."

We would particularly caution the reader not to proceed further in the development of this System, till he has perfectly understood what has already been said. The greatest difficulty in attaining the Science of Mnemonics, will arise from the habit, so prevalent, of anticipating the subjects of which an author treats.—To peruse the present work in that manner, would be as little to the purpose as attempting to read without knowing the alphabet; to understand the system, it is necessary to proceed step by step, and we would recommend to the reader the maxim of the celebrated De Wit for his guide—"Do one thing at a time," to which we might add, "and do it well."





SECTION 11.

HIEROGLYPHICS.

[First room.]

HAVING made yourself completely acquainted with the numerical arrangement, we now proceed to fill up the squares with sensible objects; be not dismayed, however, at the formidable number of figures that present themselves to view in plate Second; for although they appear to be a heterogeneous mass, they are so systematically arranged, that by paying particular attention to the following observations, they will be found perfectly easy of attainment—and here the peculiar advantage and beauty of this System over all that have preceded it is conspicuous; for these figures are not arbitrarily mixed and jumbled together, but methodically arranged, in nine series, excepting the floor stripe and ceiling, whose hieroglyphics, however, bear an analogous resemblance to their respective numbers.

In the first square on the floor stripe you will see the representation of a glass-house;—but it is necessary that you so far accommodate the vision to the fancy, and the fancy to the vision, as to imagine that you see, not merely a picture, but the object itself must be stored in your mind, for reasons which will hereafter appear. In the first square, then, there is a glass-house, the exterior being straight and uprinht, makes a tolerable representation of a 1. In the second square we see a swan, swimming towards the glass-house; its arched neck forms the figure 2. In that corner at your right hand an archer, after the chase, has laid his bow, which, as the string happens to be next the swan, forms the figure 3. Upon your left, in the fourth square, cast your eyes upon that couch, or easy chair, sit down in it, with any three friends you choose to invite, and there will be 4 of ye, however the empty chair will form the figure. Esculapius, the god of physic, is in the fifth square, the serpent twining round his stick, emblem of his wisdom, forms the figure 5; but as every one has a favourite doctor, or Esculapius, of his own, place him there if you please.

A retort, forming the figure 6, in the sixth square, you cannot miss, neither can you the mower, whose sythe makes an excellent 7. There is a pair of spectacles in the eighth square; as they now lie a better 8 need not be wished. The nautilus' shell will answer for the figure 9, and thus the floor stripe is furnished with its hieroglyphics. Now, on the straps, or squares, which form the ceiling, you will find, in the tenth square, a lamp, the globular part of it forming a 0, and the glass which contains the light a 1, which makes 10. In the twentieth square is a sun-dial, where the dial part makes the 0, and the gnomon, or stile, forms The globe, with three feet. in the 2—that is 20. the thirtieth square, forms 30, and in the fortieth square the balloon, whose air-distended bladder. forms the 0, which with the four ropes that sustain the car make 40; the eye in the centre forms 50, which finishes the ceiling.

The series which compose the hieroglyphics for the walls, as has been already observed, are nine, so that a stripe is composed of a hieroglyphic from each; and here the same observation holds good, which was made upon the figures; for as the

figure to the left denotes the stripe, and that to the right hand the place, so here again, the first, or left hand figure, gives the stripe, and the second, or right hand figure, denotes the series. Thus, the first series are pillars, and contain the numbers 11-21-31-41, that is, one pillar, two pillars, three pillars, four pillars. The second series are heads, 12-22-32-42, that is, one head, two heads, three heads four heads. The third series are feet, 13-23-33-43, one foot, two feet, three feet, four feet. The fourth series are lines, containing the numbers 14-24-34-44, that is, one line, two lines, three lines, and four lines. fifth series are planets, and comprise numbers 15-25-35-46, and are arranged in astronomical order, beginning with the sun, it being in the centre of the planetary system, as number 5 is of the mnemonic. The sixth series, signs of the zodiac, numbers 16-26-36-46, arranged also in astronomical order, beginning with Aries. The seventh series, 17-27-37-47, are composed of what might be denominated nameless, as not being easily classified, but yet having a connected link or dependence, as industry and plenty, idleness and folly. The eighth series are the four quarters of the globe, numbers 18—28—38—48. The ninth series, 19—29—39—49, are the four seasons of the year. But in order to assist the student, the following schedule of the hieroglyphics, numbered to correspond with the plate, is annexed:

Floor Stripe.

1 Glass-House		3 Bow
4 Couch	5 Esculapius	6 Retort
7 Mower	8 Spectacles	9 Nautilus

First Stripe.

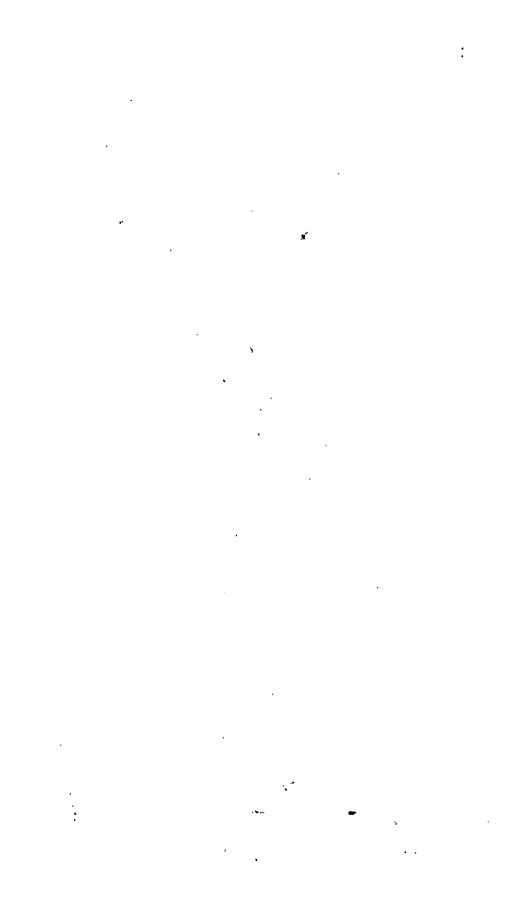
	[Needle	10	Lamp		
11	Cleopatra's	12	Sphynx	13	Feet
14	Compasses	15	Sun	16	Aries
17	Industry	18	Europe	19	Spring

Second Stripe.

	. [Cui cipi		
21	Hercules Pil-	22	David	23	Goliath
24	Keys	25	Mercury	26	Taurus
27	Plenty	28	Asia	29	Summer

flars 20 Sun-dial

Third Stripe. 30 Globe 31 Pyramids 32 Cerberus 33 Tripod 34 Ship 35 Venus 36 Gemini 37 Idleness 38 Africa 39 Autumn Fourth Stripe. 40 Balloon 42 Cherubs 41 Monument 43 Elephant 44 Fiddle 45 Terra 46 Cancer 47 Folly 48 America 49 Winter Centre of Ceiling. 50 Eye.





4

SECTION III.

HIEROGLYPHICS.

[Second Room.]

Although one room is quite sufficient for any ordinary purpose, yet as fifty more hieroglyphics may sometimes be found necessary, another room will be wanted, which we shall now proceed to furnish, ready for use, should occasion require it.

This room is divided precisely in the same manner the other was; but here we call the floor the fifth stripe, commencing where we left off in the first room, both as respects the hieroglyphics and numbers, as well as the series.

By referring to plate Third, in the first square of the floor, (51,) that is, fifth stripe, first series, you will find five pillars, being the piers of a bridge; in the second square (52) are five heads, a

bird's nest, heads being the second series; in the third square (53) beggars, a man with one foot, his wife, (I suppose she is,) and child—five feet; feet being the third series, and this floor the fifth stripe.

By carefully observing the series, and the number and place of each, you will be enabled, with ease, to commit them to memory, being cautious not to deposite a hieroglyphic in a wrong square. The subjoined list, however, will display the names and numbers of the hieroglyphics, to correspond with the plate.

		F	ifth Stripe.		
51	Bridge	52	Nest	5 3	Beggars
54	Lyre	55	Mars	56	Leo
57	Faith	58	Earth	59	Hunting
		Si	xth Stripe.		
		60	Bell		
61	Portico	62	Laocoon	63	Grasshopp'ı
64	Triangles	6 5	Jupiter	66	Virgo
67	Hope	68	Air	69	Shooting

		Ser	onth Stripe.		
		70	Miser		′.
71	City	72	Hydra	73	Trestles
74	Gate	7.5	Saturn	7 6	Libra
77	Charity	78	Water	79	Sailing
_		Ei	ghth Stripe.		
		80	Bacchus		
'81	Temple	82	Medusa's head	83	Beetle
84	Ladder	85	Herschel	86	Scorpio
87	Love	88	Fire -	89	Gaming
•		N	inth Stripe.		
		90	Horn		
91	Grove	92	Muses	93	Sacrifice
94	Harper	95	Comet	96	Sagittarius
97	Revenge	98	Smoke	99	Prison
		Centr	e of Ceiling.	,	
		10	Peacock.		

It is observable, that these hieroglyphics are not only arranged in series, but, for the further assistance of the memory, there is a kind of connecting chain between them. For instance, the

first of the seventh series in the first room, (17,) Industry, is followed by its natural concomitant, in the second of that series, (27,) Plenty; the third of the same series, (37,) Idleness, produced by, or the offspring of, (47,) Folly. The same series in the second room are, (57,) Faith, (67,) Hope, (77,) Charity, being three cardinal virtues, and (87,) Love, which, when disappointed, sometimes produces (97) Revenge. So in the eighth and ninth series, the former of which, in the first room, are the four quarters of the globe, and the latter the four seasons; in the second room are, for the eighth, elements, and amusements for the ninth; the fifth of the eighth series, in the second room, (58,) Earth, is joined to the fifth of the ninth series, (59,) Hunting; the sixth of the eighth series, (68,) Air, is connected with the sixth of the ninth, (69,) Shooting, and (78,) Water, succeeded by (79,) Sailing; then (88,) Fire, followed by (98,) Smoke—(89,) Gaming, closed with (99,) a Prison.

To a contemplative mind, the very arrangement of these hieroglyphics affords food for moral reflections, by connecting them according to the

templation of the ingenious productions of art manufactured in a Glass-House, (1) to those stupendous works, Cleopatra's Needle, (11) Hercules' Pillars, (21) and the Pyramids; (31) but while we admit the ingenuity displayed in their construction, they serve but as Monuments (41) of the vanity of man, which displays itself in the erection of splendid Bridges, (51) Porticos, (61) Cities, (71) and Temples, (81) but we prefer, to the contemplation of these, the calm scenes of the Grove. (91) Examples of this kind might be multiplied, but we think it much better for the student to form his own connections, as they will be the easier remembered.

The reader cannot be too often reminded of the necessity of having the hieroglyphics strongly impressed upon his mind—that once attained, the greatest difficulty is overcome. It would be as incongruous to expect to derive any solid advantage from this System, without having the places and appearances of the hieroglyphics as familiar to the mind as the alphabet, as to attempt building a substantial edifice upon a quicksand foundation; therefore, it is necessary to study and digest them well, and to be familiarized to seeing the objects—not merely to know where they are placed, and their names, but what they represent.*

Lest we should mislead the reader by what was observed at the close of Section I. it may be necessary to mention, that it is not insisted that he get all the hieroglyphics stored in his mind before he progresses—that is not expected; the whole of them he may never have occasion to use. It will be sufficient, in the first instance, to attain the first 19, that is, from the Glass-house to Spring, the last figure of the first stripe; a great number.

^{*} Should it have struck the reader, in the perusal of the foregoing pages, that it would require a great effort of memory to retain all the hieroglyphics in his mind, we answer, that we do not think it will require so much study as may at first appear; and if it do, certainly it would be compensated by the advantage that would arise from being able, after that difficulty was surmounted, to commit to memory a great number of facts that we would not be enabled to do without artificial aid; and that this will be the case, if this system is fairly and candidly tried, we are positive. "The value of any Science is to be estimated according to its tendency to promote improvement," says Tytler, and by that criterion we are not afraid to abide.

of facts can be deposited with those hieroglyphics. Having become perfectly acquainted with the arrangement, the student can become master of the remainder of the figures as he finds occasion to use them.

In order to facilitate the remembrance of the hieroglyphics, it would be well to make sketches of them, (no matter how rough,) the larger the better, and place them in their proper situations in a room—one view would imprint them more indelibly on the mind than an hour spent in read-A lady, who had studied this system, for the purpose of implanting upon the minds of her children the various lessons they daily received from their tutors, employed her daughter, who was a proficient in drawing, to take copies from each hieroglyphic, of a large size, and had them placed in their proper situations; the consequence was, she has declared, that her children would commit to memory more in half an hour, in their room, when thus furnished, than in a week by any ordinary method. But should this be thought too great a task, it would be of some advantage to

cut out the hieroglyphics from the plate, and place each stripe against its respective wall.

We have now completed the first part of the principles upon which this system is founded, and shall proceed to the consideration of the other part—Association, and instruct the student in the use he is to make of the hieroglyphics; we presume he will have little difficulty to encounter hereafter.

SECTION IV.

ASSOCIATION.

MNEMONICS consists of two parts; namely, Localization, or having fixed and particular places for depositing our ideas, and Association, or train of ideas, which naturally flow from or follow one another; for instance, if something is related to me under a certain tree, or upon a particular spot in my garden, if I wish to recall such conversation to mind, the spot or object near which it occurred will inevitably appear also. Should an old man wish to restore to his mind the boyish transactions of his youth, now fast departing from his memory, a walk over the green where he had formerly gamboled, probably the blithest of the blithe, would recall to his mind the companions of his sports, with their features and characters, in a more forcible manner, and pourtray them upon his imagination in more lively colours, than any other

mode he could have recourse to.—The sight of a house where a valued and lamented friend had lived, or a solitary walk in a garden or field where we formerly used to walk and converse together, would have a greater effect upon our retentive faculties, as far as respected that person, or our former colloquial intercourse, than hours spent in any other manner; in short, the sight of any object, whether it be a hill or a valley, a bridge or a river, where any particular circumstance had taken place, provided we were previously in possession of the facts, would remind us of them better, and make a more lasting impression on the mind, than the most animated description, unaided by those objects, could possibly effect.

As Chronology, Geography, Astronomy, &c. are intimately connected with dates and numbers, and as figures, especially if they consist of several places, are very difficult if not impossible to remember, we substitute letters instead, and that for two reasons:—1st. Out of these letters words can be formed, and words in themselves are easier committed to memory than numbers, and 2d. By

words we can have ideas of form and substance, which by association brings to view all the facts we wish to remember; but this will be better illustrated when we come to speak of the application of the system to different sciences.

SECTION V.

MNEMONIC NUMERALS.

The ensuing method of substituting letters for figures, which is now offered for consideration, has a decided preference over any plan which has preceded it, in the two following particulars: first, the simplicity of arrangement, and secondly, by having all the vowels excluded from the scheme they can be used as fancy or convenience may direct. Even Dr. Grey's celebrated Memoria Technica, which had so great a superiority over all previous systems as to come into common use amongst students, is so deficient as to render it impossible to form a word which conveys any meaning, but instead of that a barbarous jargon, as difficult to recollect as the figures themselves, such as Creothf, Deletok, Babetheop, &c. &c. As a proof of the superiority of the present plan, it is a fact, that many who had been previously well acquainted with other systems as well as Dr.

Grey's, abandoned and undertook, with success, the labour of forgetting them and learning this,

The following scheme exhibits the consonants placed in their regular alphabetical, and the figures in their numerical order, each two consonants answering to a figure, excepting in two instances, where j, k, and s, are linked together, and l stands by itself, for reasons which shall be given in due time.

Common Numerals.

From this arrangement it is plain, that either of the letters that are linked together answers to the corresponding figure over which they stand; and further, as no vowels are used, any of them may be taken that in conjunction with the consonants (whose correspondent figure you want) will make a word best suiting your ideas; for instance, you want number 12, then either bad, bid, or bud will do, since it is evidently of no consequence what vowel you make choice of; again, acid, bead,

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or beef will answer as well, as far as regards the letters, yet it is sufficiently obvious that the words bad, bid, bud, acid, bead, and beef, convey very different ideas; but there are five-and-twenty different words which stand for the number 12 only, by the various combinations of these four consonants with the vowels, including y, which is always used as a vowel in common numerals.

In order further to assist the reader in the recollection of the numerals, it might be a good exercise to commit to memory the following sentence, which however devoid of sense, will inevitably impress on the mind the figures correspondent with the consonants:

A cub for food took a hog, and made a joke s of an 5 6 7 8 9 cel, when a man, in a pique, rose and made a vat of 0 wax.

Where it is observable, that those monosyllables which are in italics contain all the consonants under their respective figures, and however childish it may appear, we cannot refrain from observing,

that were the student to count his fingers as he repeats this pithy sentence, it would greatly facilitate his recollection:—thus, beginning at the right hand little finger-end, for cub, and so on to cel, which will be found on the point of the thumb, then begin at the root of the little finger with man, to the root of the thumb, which will be wax, and he will find he is doing what is a very common practice with many—that is, merely counting his fingers.

Examples of Common Numerals.

Battle, = 1,995; daggers, = 23,388; perpendicular, = 78,762,158. Here we think it is a self-evident proposition, that it is much easier to recollect the word perpendicular, and more especially if it is connected with some associated ideas, than to remember seventy-eight millions seven hundred and sixty-two thousands one hundred and fifty-eight, and the reader may be assured, that by practising himself in these numerals he will, much sooner than he expects, be enabled to numerate the word, so recollected, as easily as the figures themselves.

As there are not more than 37 or 38,000 words in our language, a number far too small for the almost infinite combinations of figures which may occur, in order to give a greater scope and wider field for the choice of words to express our ideas, the following consonants are used, which, either as prepositions or terminations, stand for what are denominated great numerals, as having decimal J powers:

Great Numerals.

W or X, = 10; St, = 100; Th, = 1,000; Sh, = 10,000; Ch, = 100,000; Y, = 1,000,000.

Examples.

As prepositions, great numerals add the power of the succeeding consonants to their own; thus,

Wine, = 16; Star, = 108; Thorn, = 1,086; Shuttle, = 10,995; Chalk, = 100,054; Yes, = 1,000,008.

But as terminations, they have the power of multiplying their preceding consonants:

New, = 60; Rest, = 800; Earth, = 8,000; Dish, = 20,000; Arch, = 800,000; Say, = 8,000,000.

From the foregoing examples, it will be perceived that the words wine, win, wane, wain, wen, or won, must be 16, because n being = 6, and n beginning the words, having the power of adding 10, makes 16, while the words, maw, mew, onyx, new, now, mow, or mix, must be 60, because the letter n or m being = 6, and n or n ending the words, has the power of multiplying by 10. Again, star, stare, stair, steer, stays, stir, or store, although conveying very different meanings, must be 108, n0, n0, n0, n0, and preceding the n0 or n0, which is n0, the words rest, rust, n0, n1, or roost, is 800, because n2 by 100, &c. &c.

Should a word or sentence both begin and end with a great numeral, the first only must be reckoned as such, the succeeding consonants being all common numerals; for instance, the word Billy is 155,000, y ending the word, and having the multiplying power of 1,000,000, while Willy is only 155, because w being a great numeral, and beginning the word, adds 10 to the succeeding consonants, ll, = 55, and y not being amongst the com-

mon numerals, cannot be reckoned, having lost its power as a great numeral, by being preceded by w; so, likewise, in the word church, which is only 100,813, because the last ch has lost its power as a great numeral by being preceded by another ch.*

^{*} See note at the commencement of the Mnemonic Dictionary, at the end of the work.

SECTION VI.

CHRONOLOGY.

We now come to speak of the application of the system, as associating our ideas with the hieroglyphics, hoping that the student has at least so far progressed as to be perfectly acquainted with the arrangement of them, and completely master of the numerals; if not, it would be far better to reconsider and study with diligence the foregoing sections. But presuming that to be unnecessary, the method of association shall be given.

It has been already premised, that the student had better make his own associations; therefore, there will no more be given in each of the sciences than will serve as mere examples. To begin, then, with Chronology, which, as Lord Chesterfield observes, in connection with Geography, are the two eyes of History." The kings of England will come first under our consideration, com-

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mencing at the conquest by William, who, as the first of that race, we must place by the Glass-House, being the 1st hieroglyphic, and as we must use some symbol or sensible object which will make a lively impression on the imagination, in order to assist the memory, place any thing by it that will remind you of William; for instance, a Willow-tree, which being contracted is Will; we now only want something for the date, or time of his accession to the throne, which was in the year 1066, but as it is usual to give the fraction for the whole date, any word that gives 66 answers the purpose; therefore one Willow-tree growing by the Glass-House, and the moon (which according to the numeral system is = 66) shining upon it, gives the following facts, viz. the Glass-House shows that William was the first of that race, one Willow-tree that he was first of the name, and the moon, = 66, the year when he ascended the throne. Should the student wish to connect an historical fact with the picture, let him hang a garland of laurel on the tree, and it will remind him that William I. was called conqueror. Agreeably to this arrangement, with the Swan we place two Willows, for William II. In order to make it more picturesque, suppose the Swan swimming on a lake, and a Willow growing on each side, (a very natural idea,) tye a rope from one of the trees to the other, and the word rope will give the vear of William II.'s accession, r-p = 87, make the rope red, and it gives his surname, Rufus, or red-haired; between the trees imagine a distant view of an abbey, this will remind you that he was the founder of Westminster Abbey. the Bow, which is the 3d hieroglyphic, you can put a Hen, for Henry; let it be a dead one, for Henry had killed it with his bow, and is lamenting over it, as it was his best hen; the word best gives 100, the year of his accession;* the bow being an ancient instrument of war, may remind you that in this reign commenced the first war between

^{*}The word best is considered as a great numeral, otherwise it would be 189, and it is worthy of observation, that st when considered as a great numeral termination, always decreases instead of increases the number; therefore, the author would advise, that it should not be used indiscriminately, but either be always or never used as a great numeral, for fear of mistakes, although in this instance there is no danger, because the next king began his reign in 1135, therefore, considering best as common numerals, he must have began his reign 54 years before his predecessor. When a termination, st had better always be considered as a great numeral.

England and France. Upon the couch, place any friend of the name of Stephen, (he being the only one of the name, a symbol is unnecessary,) if he is a musician, so much the better, but if not, suppose him to be a learner, for he is playing on the bugle, = 135, the year he ascended the throne. Esculapius is endeavouring to catch two Hens, an odd employment for a physician, but as he is a good-natured doctor, he perhaps wants them to make soup of for some patient—he has nearly caught them under his cloak; the word cloak, = 154, gives the year Henry II. began to reign. By the Retort, which is the 6th hieroglyphic, stands a Rich man, who is about trying an experiment, and has got a brat of a boy to kindle a fire under the Retort; -here we have one Rich man for Richard I. the sixth king of England, whose accession is given by the word brat, = 189. enth king was John, and as the Mower has not got a name, we will call him John the Mower, especially as there has been but one king of England of that name; mowing being laborious work, we may suppose John thirsty, and place a butt by his side, as the word gives 199, the year of his accession; imagine him mowing in Runemede,

and you will recollect his wars with the Barons, when Magna Charta was obtained. Look through the Spectacles, the eighth hieroglyphic, at those three Hens, and call out face me, which words give 216, the year Henry III. began his reign. With the Nautilus' shell, we must place the ninth king of England, who was Edward I., one Ward, or Guard, therefore, will be an appropriate symbol for him—the Nautilus' shell being a beautiful and expensive natural curiosity, we will suppose the soldier had purchased one, but was by some means duped, for he seems somewhat vexed; the word duped, = 272, being the year of Edward's accession to the throne.*

^{*} As it might be considered tedious and unnecessary to go through the whole series in this manner, a plan is subjoined of the stripes, as far as is requisite for this purpose, with the mnemonic words and symbols merely, keeping in view that the names of the hieroglyphics are in small capitals, the symbols in roman, and the mnemonic words in italic letters. A diagram is also added of the first nine kings of France, as an example, commencing with the Capethan race; in like manner any succession of monarchs may be connected with the hieroglyphics, being careful to use separate rooms for different countries, as no one would think of writing or printing two subjects one over the other, and in all cases let the ideas be kept distinct and clear. We would suggest one hint, how-

We have now gone through with the floor stripe; and it has been thought necessary to be somewhat diffuse in the detail, in order to show how the ideas are connected; for it is absolutely necessary that the hieroglyphic should be connected by a

ever, that it would be an excellent plan for those who are acquainted with different languages, to have the mnemonic words in the language of the country which is the subject of study.

	10-LAMP.	
FIRST	2 Guards.	STRIPE.
	Go wipe.	·
11-CLEOP. NEE.	12-sphynx.	13-гоот.*
3 Guards.	2 Rich men.	4 Hens.
Good pay.	Hop up.	Got a toe.
14-compasses.	15-sun.	16-ARIES.
5 Hens.	6 Hens.	4 Guards.
Oak cage.	Jaded.	Knob.
17-INDUSTRY.	18-EUROPE.	19—spring.
5 Guards.	3 Rich men.	7 Hens.
Jeer age.	Yoke a rogue.	Oak rail.

"Henry IV. being the first king of the house of Lancaster, whose insignic, was a white rose, a white rose can be placed upon the instep of the hierogly-phic, to remind us of that fact. Immediately under it, on one of the ram's horns, place a red rose, the insignia of the house of York, of which Edward IV. was the first monarch, and the mnemonic knob on the other horn. Under that again, at each end of the oak rail, place a rose, one red, the other white, and you have the union of the two houses in the person of Henry VII.

chain of ideas with the symbol and mnemonic word, because by this means we not only know

	20-sun-dial.	
SECOND	8 Hens.	STRIPE.
	Eli exit.	
21—PILLARS.	22-DAVID.	28—GOLIATH.
6 Guards.	May pole.	LIZARD.
Leek pie.	All hay.	Lilies.
21—keys.	25-MERCURY.	26-TAURUS.
1 Chain.	1 Chariot.	2 Chariots.
Now go.	Madly.	Maim ox.*
27—PLENTY.	28-ASIA.	29—summer.
2 Chains.	3 Willows.	Anne.
No rule.	An ass.	Pawed.

•	30—GLOBE.		
THIRD	1 George.	STRIPE.	
	Pack.		
31-PYRAMIDS.	32—cerberus.		
2 Georges.	3 Georges.		
Paid up.	Pain & woe.		

^{*}It would appear, by subtracting Madly (625) from Maim ox, (660,) that Charles I. reigned 35 years, because according to the custom in the chronology of kings an interregnum is never noticed, one king's reign always beginning where the last ends—"Kings never die;" but in fact, Charles I. reigned only 24 years, as he was beheaded in 649, (one kite,) which kite, if tied to one log, (653;) will show when Cromwell was declared Protector, and that subtracted from maim ox gives 7 years, the time of the protectorship.

where a king enters in the succession by regular rotation, but can also tell, at one thought, the numerical order of any king, from the conquest, without counting; for instance, I wish to know who was the 20th sovereign—I think immediately of the 20th hieroglyphic, where I see a sun-dial, surrounded by eight Hens, (Henry VIII.) upon the dial is engraved a very common motto for such a purpose—eli exit, = 509, the year when Henry began his reign. Again, who was the 24th king? look in the 4th square of the 2d stripe, and

SOVEREIGNS OF FRANCE.

FLOOR STRIPE.

1-GLASS-HOUSE.	2-swan.	3—вож.
Hugh.	2 Robes.*	1 Hen.
Tye a rope.	Too vain.	Hub.
4—couch.	5-ESCULAPIUS.	6-retort.
1 Phial.†	6 Louis d'ors.	7 Louis d'ors.
Mix.	Bower.	Big pie.
	8-SPECTAGLES.	9-NAUTILUS.
2 Phials.	8 Louis d'ors.	9 Louis d'ors.
Boraz.	Dye a dog.	Diadem.

^{*} Robert II.

[†] Philip I.

you will see keys, (24,) with one Chain* for James I. Imagine, then, a person chained and double-locked, and any one inclined to taunt might say, now go! = 603., &c. &c. But the student is at perfect liberty to use such symbols and mnemonic words as suit his own ideas, being careful not to alter the hieroglyphics so as to derange the series.

^{*}Probably a better symbol might be found for James than Chain, but in the first place it will generally be found that what first strikes the imagination makes the most forcible impression, and the author, when he first made these associations, had not the most distant idea of publishing; and secondly, the symbol associates well with the hieroglyphic. The same may be said of 27, where Plenty is with two Chains—(James IL.)—notwithstanding we may have plenty, unless some restraint [chains] is used, there is no rule (685) but want may be experienced.

SECTION VII.

GEOGRAPHY.

GEOGRAPHY comes next under consideration, which is in itself so abstruse a study, and in the abstract so difficult, if not impossible, to comprehend, that the ancients when they reduced it to a science were obliged to have recourse to that part of Mnemonics which draws imaginary lines; hence the parallels of longitude and latitude, and the equator and tropical lines were formed, to assist the imagination; and therefore it is that youth can so easily form a tolerable correct conception of the relative situations of the different parts of the earth. But we think it will be found, that by a judicious application of this system in all its component parts, the recollection of facts already known, if not the study of Geography, will be greatly facilitated.

There are two different projections of the globe; one called Mercator's, the other Newton's; the former supposes the earth to be in the form of a cylinder, with the parallels of longitude running on infinitum, without ever coming to a point, and the parallels of latitude encircling it round, like the hoops of a barrel; the latter supposes the earth to be what it really is, nearly globular, and a little flattened at the poles, with the parallels of longitude meeting at the north and south poles, and diverging until they come to the equator.

For the purpose of applying this systen to Geography, two rooms of equal size, one exactly over the other, will be necessary, which two rooms form the interior of the globe. Imagine yourself seated in the middle of the floor of the upper room, which will be in a relative situation to the centre of the earth, the floor representing the plane of the equator, or what is emphatically called the line, as being the grand geographical division of the earth into the northern and southern hemispheres, the upper room containing all countries north, while the lower room contains all countries south of the equator. In the division of our mnemonic globe, we will, if you please, follow Mercator's plan upon the walls of the rooms, and on the ceiling of the upper, and floor of the lower, adopt Newton's projection.

Some maps are divided into spaces of 10 degrees, while others have 15 degrees of longitude in each space, we prefer the former, because counting by 10's or decimally, is much the easiest, nor do we know any reason for dividing into 15°, but that every 15° of longitude makes an how difference in time; thus, a place 15° east of us has the sun one hour sooner, while a place 15° west has it one hour later than we have; but that is easily calculated, for 10 and 5 being 15, it is only taking one space, and the half of the next, and you have the time required: you will there fore, divide each wall into nine spaces perperdicularly, which we will call ladders, draw two diagonal lines from corner to corner of the ceiling of the upper and on the floor of the lower room, which of course will divide them into four triangles, each triangle appertaining to its own wall, which are called 1st, 2d, 3d, and 4th stripes, (beginning at the left hand as usual,) including the triangle to the centre of the ceiling, from whence also draw lines, gradually diverging till they join the perpendicular ones on the walls. The centre, where these lines meet, is the north pole on the ceiling over head, and the centre of the floor of the lower room, corresponding with this ceiling, of course is the south pole. Thus, you have 36 ladders with their apex or points, that is, 9 upon each stripe, and counting each ladder 10°, gives 360, being the circumference of the earth—all degrees of longitude meeting at the poles.

All geographers have some place from whence they reckon their east or west longitude, and call it their meridian. The English reckon from London, or rather the Observatory at Greenwich; the French—some from Paris, others from Ferro, one of the Madeira islands; the Dutch from Amsterdam; the Americans from Philadelphia; but whatever place you call your meridian, place it on the left corner of the 1st stripe, where it joins the 4th, then count 90° east longitude on your first stripe, and 90° on the second, making 180° east, and beginning at the same place, count 90° on the fourth

stripe, and 90 on the third, it will make 180° west longitude, and consequently that corner will form the antipodes to your meridian; thus far as respects degrees of longitude. For parallels of latitude, divide the ladders into 6 steps, beginning at the floor or equinoxial line upward to the ceiling of the upper or northern and 6. steps down to the floor of the lower or southern room; this is done by drawing 5 horizontal lines at equal spaces round the rooms, each step 10° of north latitude, reckoning upward to the ceiling, and 10° of south latitude downward to the floor of the lower room, so that you have every place up to 60° north latitude on the walls of the room you are in, and every place up to 60° south on the walls of the room beneath; divide your triangles upon the ceiling and floor, each into three, by drawing two horizontal lines from each diagonal one, and then you will have three steps each 10° up to the poles. However, as there is very little known past 60? north, and nothing south, you will not have much use for them.

We now proceed to point out the method of numbering the ladders and steps for placing the hieroglyphics, which is done simply by first counting the ladders, beginning at your meridian corner -thus, 1-2-3-4-5-6-7-8-9 east, and the same west, upon each wall; then count the steps 1-2-3-4, &c. &c. from the floor upward to the north pole, and the same downward to the south. Now prefix the number of the ladder, or longitude, and affix the number of the step, or latitude; thus, the first step of the first ladder will be (11,) the first step of the second ladder (21,) &c. &c. the sixth step of the ninth ladder will be (96,) and upon the eighth ladder and seventh step (87,) &c. &c. Fig. 2, plate 1, exhibits one wall with its appendant triangle, divided and numbered as has been described—the squares are not all filled, as it is thought the student had better fill them with his pen, being the most likely means of making him thoroughly acquainted with the plan.

You are now enclosed in a geographical mnemonic net, in which you can catch every part of the known world, and place it in its proper situation as far as respects longitude and latitude;—

thus, upon the first ladder east or west will be found every place lying between the meridian from whence you reckon, and 10° east upon the first wall, and 10° west upon the fourth, and upon the first step of these ladders all places between the equator and 10° north in the upper and 10° south in the lower rooms, casting aside the ciphers, the two 1's making (11); again, upon the second ladder will be found all places between 10 and 20° east or west longitude, and upon the second steps of those ladders all places between 10 and 20° north or south latitude; so that the ninth ladders contain all places between 80 and 90° east on the first, and west on the fourth walls; and on the fourth steps of those ladders, all places between 30 and 40° north in the upper, and south in the lower rooms; this serves for first and fourth walls, as containing all places from the meridian of longitude up to 90° either east or west. But all places lying between 90 and 180° east will be found on the second wall, and all places between 90 and 180° west on the third; all you have to do, then, is to add nine to the number of the ladder, and it will give the degrees of longitude—the number of the steps, that

is, latitude, always continuing the same. Thus, upon the fourth ladder of the second wall what is the longitude? 130° east, because 9 and 4 are 13, the cipher always being supplied. Upon the sixth ladder of the third wall what is the longitude? 150° west, by the same rule, 9 and 6 being 15, that is, all places between 120 and 130° east in the former, and all places between 140 and 150° west in the latter example. What is the hieroglyphic for the 34° longitude and 14° latitude? Cherubs, (42,) for it is between the 30th and 40° of longitude, and the 10th and 20th of latitude, and we always, agreeable to rule, take the longitude for the first, and latitude for the second figure, and up to the highest number or next decimal place. Again, what is the hieroglyphic for longitude 122, latitude 41? Terra, or the 45th hieroglyphic, as 122 is more than 90, it must be on the second wall if it be east, or upon the third if it be west longitude; therefore, subtract 9 from 12, the two first figures, (or add the two first figures together, it is all one,) and it will make 3=32 between the 30th and 40th degrees of longitude, so take 4, the highest number, and prefix it to 5, (the latitude required being between 40 and 50,) and it will

make (45.) What is the hieroglyphic for the Cape of Good Hope, and where must it be placed? (34) Ship on the first wall of lower room, third ladder, fourth step, for the longitude is about 21° east, and the latitude 35° south, therefore as it is more than 20° we must take the next decimal, viz. 30, which will bring it on the third ladder, and as it is under 90 east, it must of course be on the first wall, and being above 30° latitude, of necessity it will be on the fourth step, and lying south of the line, it must be in the lower room. Once more—the island of St. Helena is between 4 and 5° west, and 8° south, therefore in the first step of the first ladder on the first wall, (11,) Hercules' pillars, in the lower room.

As it is conceived needless to multiply examples, the only observation now necessary, is, that after making yourself master of the facts, by learning the local situation of a continent, island, ocean, sea, kingdom, nation, or country, you can at once fix them on your mind by associating their names and any particular circumstance relative to them, with their respective hieroglyphics; thus—the island of St. Paul is situated in the

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South Sea, 115° west longitude, (from London,)
18° south latitude, therefore, agreeable to rule,
it will be on the second step of the third ladder,
third wall of the lower or southern room, the hieroglyphic will be (32,) Cerberus, and as the Apostle Paul was an eminent champion for truth, and
so successfully opposed the prince of darkness,
only localize the hieroglyphic in its proper place,
(which in every case is indispensably necessary,)
and imagine you see Paul contending with Cerberus, and whether you consider the Apostle contending with the superstition which invented the
fabulous monster, or with that power he was
meant to represent, the idea is natural and will
answer the purpose.

SECTION VIII.

ASTRONOMY.

OF all the sciences with which man is acquainted, there is none so dependent on hieroglyphics as astronomy; indeed, it may be said to rest. wholly upon them as far as respects the view of ; the heavens when reduced to that regularity which enables us to form any tolerably correct idea : of the numerous stars and vast orbs which bespan gle them. Hence, has imagination formed shapes of the constellations, therefore have names been given to them and the planets in order that we may know them. This system then is admirably calculated to record in our memories facts relative to it. For this purpose, two rooms are requisite. divided, and the hieroglyphics localized in precisely the same manner as for general geography. In studying astronomy upon a celestial globe, the pupil must imagine it transparent, and he sit-

ting in the centre of it, otherwise the stars that are placed to the right hand on the globe, you must look for on your left in the sky, and vice versa;—here that difficulty is obviated, for seat yourself as in the geographical rooms and you will be surrounded by the stars in their proper places; only recollect, that although it would be absurd in geography to talk of any place being more than 180° east or west, 180 being the semicircumference of the earth, yet in astronomy it is different, as the longitude of a star or planet is recksoned from Aries eastward quite round the globe, hence extends to 360° on the ecliptic, therefore Aries must be placed in the same corner in these rooms, (only close to the floor of the upper room, , that being the ecliptic,) as your meridian from which you measured longitude in geography; so of course we count from Aries up to 90° on the first or left-hand wall, from 90 to 180 on the second, from 180 to 270 on the third, and from 270 to 360° on the fourth, where it comes up to Aries again. In order to determine the number of the ladder upon either of these walls, pursue the same method as in geography with the first and second walls, i. e. the nine ladders on the first speak for

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themselves, and on the second add nine to the first or longitudinal figure; but as in astronomy there is no east and west, but all E. you must add 18, or two nines, to the number of the ladder on the third, and 27, or three nines, on the fourth wall; or what is still easier, by adding the two first & gures of the longitude together, it will give the ladder; for instance, suppose a star has 299° 304, longitude, as it is above 299 it must be considered as 300, and as 3 added to 0 is still 3, it will be on .! the third ladder, and being above 270° it must be on the fourth wall, which agrees with the former rule, for if you add 27 as being on the fourth wall to 3, the number of the ladder, it gives 39, and by supplying the cipher, which is uniformly the case, it makes 300. Again, a star being observed to be in longitude 243, that being a fraction, it comes. on to the next decimal, viz. 250, add 2 and 5 together=7 consequently the 7th ladder, and on the third wall being more than 180 and less than 270, also agreeable to former rule add 18, for third . wall to 7, number of the ladder, and it gives 25, add 0 = 250. Once more, a star 160° longitude, 6+1=7, or 9 subtracted from 16=7 or 9+7=16. it is all one, therefore on the seventh ladder second

wall being more than 90 and less than 180°. As the latitude, or distance from the equator north or south is the same in astronomy as in geography, it is thought needless to make any further observations on the steps or degrees of latitude, any more than it is usual in speaking of the stars to make use of the terms right ascension instead of longitude, and north or south declination instead of latitude; agreeable then to this arrangement, suppose a star is observed to have 198° right ascension and 32° south declination—where am I to place it? In the lower room on the third wall, being south and above 180, and on fourth step, second ladder, (24,) Keys. Again, a star having 293° right ascension, and 67° north declination, in what part of the astronomical rooms must it be placed, and what hieroglyphic? On the seventh step of the third ladder, and the fourth wall of the upper room, (37,) Idleness. By the same rule you may easily find out where to place any star after having ascertained its ascension and declination; and as there are not names given to all the stars, you can, if you please, give one which will associate with its respective hieroglyphic. Thus, by the help of a lively imagination, you

may, having localized them on your walls, point at once to them—tell their situation, and call their names. One observation will close this part of our subject; those who derive their knowledge of a science by merely reading, may be smatterers, while those who apply by practical observation and commit to memory will become masters.

What has been hitherto said, only applies to the local situation of the constellations, or properly speaking, the various stars of which they are formed, but those who chiefly wish to retain astronomical facts as respects calculations, will have occasion but for one room, and divided in a very simple and easy manner, viz. each wall into three ladders, with one horizontal line running round midway from the ceiling to the floor; at the foot of each of these ladders, place a sign of the zodiac, beginning as usual at the left hand of the first or left wall-place them in their regular astronomical order, beginning at Aries, so that Aries, Taurus, Gemini, will be at the foot of the ladders on the first wall, and Cancer, Leo, Virgo. at the foot of the ladders on the second, &c. &c.

On the second step (calling the floor one,) of each ladder, place the planets in their regular order, beginning with Mercury, as being nearest the Sun-of course Mercury will be on the step over Aries-Venus will be over Taurus, and our Earth over Gemini, &c. &c. but as there are but eleven planets, you place a comet over the twelfth sign. Pisces, which will of course be found on the twelfth ladder, and on the fourth wall. In the centre of the floor place the Moon, across which write the word fabric, and in the centre of the ceiling place the Sun, and if you please, for reasons which shall hereafter appear, depict Sol, with poetic license, in a chariot drawn by race horses. elegantly have we furnished our room with apparatus, now for application to business, and making it subservient to our purpose by a regular association of ideas; and having a fixed principle to go upon, all that is necessary will be to acquaint yourself with the facts, such as the number of stars in a constellation, the number of each magnitude, the diameter of each planet, their diurnal motion, distance from the Sun, time of their revolution round it. &c. and make it into a mnemonic word or sentence, and associate it with

the planet or sign to which it refers. But as there are 32 southern constellations, composed of 805, and 31 northern, consisting of 1048 stars,* for the sake of example, and to prevent prolixity, there are 4 diagrams; of the walls, where the number of stars in the zodiac, (which forms a belt of 15° in width round the centre of the Earth, running east and west,) the number of stars of each magnitude, the diameter of the planets, distance of each from the sun, and time of revolution round it are given,

^{*} According to *Flamsted*, as given in *Ferguson's* Astronomy, printed in 1785, except Crux, a southern constellation, composed of five stars, not in *Ferguson's* catalogue.

[†] The calculations in these diagrams are according to Herschel. || Observe, that the names of the signs and the planets are in SMALL CAPITALS, the mnemonic words in italics, and the associating ones in roman; the first mnemonic word (beginning at the bottom of the ladder) gives the number of stars in the constellation; the second mnemonic word, the number of stars of each magnitude, the word giving the number of stars of the first magnitude, being on the first ladder; the one giving the number of stars of the second magnitude being on the second ladder; the one giving the number of the third magnitude being on the third ladder, &c. as there are none classed after the sixth magnitude, they then becoming too small to be distinguished by the naked eye, they discontinue on the third wall; the first mnemonic word over the planet on the second step gives the diameter of that planet; the second gives the distance of the planet from the Sun, and the third and last gives the time of the planet's revolution round the Sun, calculated in days. Where any of these facts have not been ascertained. there is a dash placed instead of a mnemonio word, as is the case in Vesta, (third wall, upper step.) whose diameter is unknown.

where you will observe that on the top of the first ladder, and from the connecting words, (for those,) there is a hand which we suppose pointing to the race horses on the ceiling, as the words race horses gives the diameter of the Sun. Again, at the top of the third ladder, from the associating words, (in the) there is another hand pointing downward

		•
for those		in the \(\bar{\gamma}
Sake	Duke ale	Ham and ale
for my	for drinking with the	when they had
Go pay	Envy	Volcano burst
	out of	till a
Good duke	Poor Mope	Quiet house
and says	and called her	. which was a
MERCURY	VENUS	EARTH
to	met	on the
Cup	Nag	Betime
holds up a	riding on a	•
Moon	Buy juice	A reel
looking at the	going to	dancing
ARTES	TAURUS	CEMIA4

to the Moon on the floor, across which the mnemonic word fabric gives its diameter; should you wish to recollect its distance from the Earth, suppose the sentence, If Joe would go, written, and it will give it. The reasons why the diameter of the Sun is connected with the first, and the moon with third ladders, are because Mercury is the nearest planet to the Sun, and our Earth has more to do with the Moon than any other planet we

Mosque	Can rob	Cap & wig		
in a	whom she	•		
Bake love letters	Flattering fool	Funny		
for attempting to	to 'a	into a		
Jackal .	Bound	Saw		
and called him	who was	to		
MARS	CERES	PALLAS		
·	at	and gave		
Kick	Gazer	Hazeal		
threatened to	and was a	of		
Rage	Tail	Buy a box		
in a	shook his	di d ·		
CANCER	LEO	VIRGO		

know of; at least according to the opinion of those who think the greatest part of mankind are under the influence of Luna, if not totally governed by her.

& fix a bed	Baby once	Jagged	
	for your	which was	
Oh wax eye	I did pay	Jar away	
	said	for stealing his	
Bake a flea	***************************************	Rout Cupid	
said		who did	
ONUL	VESTA	JUPITER	
to	of	and gave it to	
L ace	Joke Mit		
tyed with a	made a shet		
LYBRA	SCORPIO	FAGITTARIUS	

Cow & pilot	Hoax a pigeon	1			
at the	and did				
Tax a way	Cart way	Taking snuff*			
10	in the	* Nearest approach to our Earth of			
Put a week of	Globular	the comet which			
who had	who was	appeared in the year 1811.			
GATURN	HERSCHEL	COMET .			
for	at	saw a			
Alibi	Stare	Beach			
proved an	did	lying on the			
Capricornus	AQUARIUS	RISCES			

SECTION IX.

STATISTICS.

This branch is called political geography, as it is not the situation of a place upon the globe, but its resources as to extent of territory, population, produce, &c. &c. to which it refers. For the purpose of applying the mnemonic system to the recollection of statistical facts, you require one tablet, (see plate 1. fig. 6.) where the hieroglyphics are arranged in ladders and steps, and numbered the same as for geography, i. e. all the pillars in a row on the first step, all the heads on the second, all the feet on the third, &c. &c. but as each ladder will serve for one country, or state, you can make use of any ladder at pleasure, only confine yourself to that one to prevent confusion, and if you choose, place some symbol ovér it to denote it, as a rose for England, a harp for Ireland, a thistle for Scotland, &c. The facts also oppos te

the steps can be altered at pleasure, and as many steps as you wish to collect facts for, but the reason which induced the author to make choice of the steps for the recollection of the annexed facts in this tablet, is the appropriation of the series to the respective subjects—Pillars, the first series, are allotted to territory, and whether we consider the stability of pillars, or that they must have something to stand upon, they are surely the most appropriate to the purpose; the next step is for population, second series, heads, and certainly if any thing denotes population, heads do; the third step, feet, which occupies the place for products, and very little will be produced without feet and hands. Arts and sciences are upon the fourth step, and lines take the place; science is so connected with lines, that the ideas are not easily separated; the fifth step being designed for government, and the fifth series planets, which according to judicial astrology are inseparable. however if they do not govern us, it is certain we cannot govern them. The sixth series are the signs of the zodiac, and as Aries or the ram is the first of those, a battering ram is not very unappropriate to the army and navy; -we next come

to commerce, which is in the nameless series, being the seventh step, and it is well known that commerce ebbs and flows from nameless or various causes; the eighth step is for the revenue which comes from all the quarters of the globe, and those are the eighth series. The last is religion; the ninth or last series are the seasons, and religion certainly is never unseasonable, it might also remind us, that as religion should be our first concern, it will be our last hope.

Not having sufficient data to go upon for the United States, except for very few of the facts, and being persuaded that after showing the method, the student will not be at any loss in making his own associations, having ascertained the facts, an example of association shall be given as respects England in the year 1814, when the author was there, and where the associations were made. For this purpose the first ladder was made use of, and on the first step with Cleopatra's needle, place Leopards, which have been fighting, we may suppose, for they are in an ygony. Leopards=57,828 gives the square miles, and agony=36,000,000 the square acres in

England. On the second step is the Sphinx, round which is a company of men—suppose them to be a jury, met to pass their judgment upon the many ridiculous stories told about it, for they are laughing, and jury joking us=4,844,638 gives the male population of England; if you wish to recollect the female population, imagine a Lady standing at a little distance, and as she is ashamed at the jury laughing so immoderately, she needs a veil; Lady needs a veil=5,262,895. The produce of a country is divided into two parts, viz. natural and artificial, these require no figures, but merely symbols—suppose the natural produce for which England is most famous to be wool, and its artificial or manufacturing produce cotton goods and hardware, or probably glass-a woolpack and a cotton mill, &c. will suffice; the next step is of the same nature, not requiring figures, being arts and sciences, therefore whatever a country is most celebrated for, place some significant emblem, as a music book for music, a pallet or easel for paint-The same may be said of the government of a country—where it is an absolute monarchy a crown is a fit emblem, for an aristocrocy. coronet, for a democracy a hat, and where a mixed

government, two of these, or three, as the case may require; and as you think these branches preponderate, place one over the other, as in Russia, which though called a monarchy, yet the nobles having in fact the power of deposing or making the monarch at pleasure, we should place the coronet over the crown and leave the hat out of the question. Thus, by the use of these three emblems, and varying them according to circumstances, you can represent any known government in the world.

We now come to the army and navy, the hieroglyphic for England under this head, being the ram, suppose the ram fat with beef and biscuit, and it will give the army and navy of England at the time spoken of, the words fat with=290,000, the army, and beef & biscuit=121,819 the navy, and it would be almost impossible to think of beef and biscuit without thinking of sailors, and vice versa. The commerce of a country also brings into view two objects, viz. exports and imports, the imports at that time was 59,000,000, and the exports 66,000,000 in round numbers, which is sufficient for our purpose, the word levy

SECTION X.

LANGUAGES, BOTONY, &c. &c.

THE mnemonic tablet, fig. 4. plate 1. can be applied to other uses beside statistics; any studies that can be classified and arranged under different heads; as languages, by the different parts of speech, and cases, with their declensions, &c.-Music, its notes, and their subdivisions;—to botony, mineralogy, chemistry and natural history, with their various classes, orders, genus and species, mnemonics may be applied with success by an ingenious mind, and the help of a lively imagina-For instance, in Latin where there are six cases and five declensions of the nouns, you would want the first five ladders for the declensions, and six steps for the cases; nominative on the first, (pillars,) genitive on the second, (heads,) dative on the third, (feet,) &c. keeping the singular terminations on the left-hand, and the plural on the

right of each step. See example of one ladder with *Lapis*, a stone.*

Botany.

For Botany, for which, from its variety of subdivisions, this science is admirably calculated, but a very few brief hints can be given; as it is divided into twenty-four classes, and some of those into a variety of orders, and again subdivided into numerous genera and a still greater multiplicity of species of each, no more can be said than to lead

	Nominative,			Genitive		Dative.		Accusative.		Vocative.	ADJatire.	Ablativa	Cases.	1
Lapis.	11 CLEOPATRA'S N	i.	2 SPHINK.	dis.	13 FOOT.	di.	14 COMPASSES.	dem.	15 sux.	8.	16 ARIES.	de.	Singular.	1st Declension.
	NEEDLE.	des.		dum.		dibus.		des.		des.		dibus.	Plural.	on.

the mind into a view of the subject. It would be recommended, then, for a cursory outline of this interesting and highly useful study, to divide the classes into ladders, and the orders of each class arrange on the steps of each ladder, and when the first nine classes with their orders are well stored in the mind, take nine ladders more and fill them with the next nine classes, &c. (only recollect to put the tablet upon some fresh wall,) thus, when the grand divisions are treasured in the memory or intellectual store-house, it will be necessary to have a ladder for each order, and a step for each genus, &c. &c. But to proceed with the first nine classes. Flowers are divided into classes, which are distinguished by the number of stamens—thus, 1st class monandria, having one stamen; 2d class diandria, two stamens, &c. Each class divided into orders, which are distinguished by the number of pistills—thus, flowers of the monandria class have only two orders, viz. monogynia one pistill, digynia two pistills, &c. while some of the classes are divided into twelve orders, having twelve pistills; but there are none of the first nine classes with more than six; however to prevent prolixity, sub-

هري وي الأيواد الأيواد الياب ويوا**يون ويد** والم

joined is a table of the first nine, with their respective orders.

Classes.		Orders.
1. Monandria,	{	Monogynia. Digynia.
2. Diandria,	{	Monogynia. Digynia. Trigynia.
3. Triandria,	\{	Monogynia. Digynia. Trigynia.
4. Tetrandria,	}	Monogynia. Digynia. Tetragynia.
5. Pentandria,		Monogynia. Digynia. Trigynia. Tetragynia. Pentagynia. Polygynia.
6. Hexandria,	{	Monogynia. Digynia. Trigynia. Tetragynia. Polygynia.
7. Heptandria,	{	Monogynia.
8. Octandria,	{	Monogynia. Digynia. Trigynia. Tetragynia.
9. Enneandria,	{	Monogynia. Trigynia. Heragynia.

Mineralogy.

For mineralogy the same method might be adopted, and as there are but four classes, viz. 1st

earths, 2d metals, 3d salts, and 4th inflammables, four ladders may be sufficient for the first grand division, and upon each step place an order, the greatest number of which is seven, and those in the first class, viz. 1st calcarious earth. 2d silicious, 3d ponderous, 4th gemmeous, 5th magnesian, 6th agustine, 7th gluceous; seven steps would be all that is requisite for the first ladder, and upon each of the steps associate with the hieroglyphic the name of some earth remarkable for any of the foregoing properties in their respective orders. For the second class, metals, take the second ladder with three steps, as the orders in this class are, 1st perfect, 2d imperfect, 3d base. On the third ladder salts, with five steps, for, 1st acids, 2d alkalies, 3d neutrals, 4th middle, 5th metallic. And on the fourth ladder the inflammable class, which has three orders—1st aëreal, 2d liquid, and 3d solid, consequently three steps. Thus, a key has been given and a few hints suggested, which doubtless with proper use and enlargement would be found highly serviceable, but as there is no pretence made to teaching any of these sciences more is unnecessary.

SECTION XI.

HISTORY, MODERN AND ANCIENT.

Modern history commences at the birth of Christ-for the recording and treasuring up historical facts from that epoch twenty rooms will be necessary, but do not be alarmed at the formidable number, for they are as easily erected as the materials are purchased, being built of "thin unsubstantial air." In the imagination a ground plan is only wanted to prevent confusion. Plate 1. fig. 4. represents a ground plan of a house containing that number of rooms, and with a little explanation there is no danger of being lost. The first room, (which is on the upper side of the left-hand quadrangle, and may be considered as a porch or entrance,) you will perceive is marked with a cipher, this we will call an orangery, or orange room, as oranges resemble circles or ciphers—the first room in the square being No. 1.

is of course the glass room, glass being the production of a glass-house; the next is the swan, which you may call an aviary, a receptacle for birds; the third, a bow or armoury, &c. &c. the room, or vestibule which connects the two squares is No. 10. which as it serves for a passage out of one part of the building to the other, you will have well lighted with the lamp, (10.) Thus being furnished with such articles as designate its number, corresponding with the hieroglyphics, (for these must be kept in view through the whole of the system,) each room will contain the events of one century—the cipher or orange room those of the first century after the birth of Christ, the glass room those of the second century, &c. &c. For dividing each room or century into years, three walls only will be wanted, i. e. the first, second and third; for the division of these walls. see plate 1. fig. 3. where a diagram is seen divided and numbered for the first wall, and as all the three walls are to be divided alike, that will serve for the whole, the figures only are altered which we shall now explain. It is observable, that upon this one wall are placed three stripes, i. c. the

first, second and third, with their respective decimal places on the ceiling, consequently the floor having its nine hieroglyphics according to the original plan, including that, all numbers up to (39.) will be found on the first wall, therefore the second wall being divided in like manner, commencing with (40,) on the ceiling of the first stripe of that wall, and disposing of the numbers in their regular rotation, (69) will end that wall; proceed in a similar way on the third wall, and (70) will commence the ceiling, and (99) will end that stripe, (100) being in the centre of the ceiling, so that you have one hundred hieroglyphics in each room, and disposed of according to their original order, with only this difference, there are three stripes concentred on one wall, and the fourth being that behind you is left vacant; however, if you like it better, one large hieroglyphic designating the room or century can with advantage be placed there, but this is entirely optional, for as long as you keep a distinct idea of each room, so as to know one century from another, it is sufficient. We have now one room for each century, and one hieroglyphic for

each year, and the connection of them is easy and simple, it is only dividing the date, and taking the room for the hundreds, and the hieroglyphic for the fraction.*—thus, in which room and on which hieroglyphic should I record an event which took place in the year 1476? In the room where the large compasses are, (14,) (or if you prefer the other plan the mathematical room,) and on the hieroglyphic Libra, (76,) in that room. In which hieroglyphic, and where, should a circumstance be placed which happened in the year 102? With the Swan in the glass room—that being two years past the first century. Again, I wish to recollect when guns were invented—place one in the hands of Bacchus, and let him aim at the large foot, and it will give 1380, that is, (13) for the century, and (80) for the fraction; or should we wish to remember when America was first discovered by Columbus, let the first of the series of lines or sciences, Compasses, (14,) be united with the Muses,

^{*} Hence, the use of the cipher room, or we should have had ocsion for as many hieroglyphics as there are years, which now would be 1818, a burdensome number, almost as difficult to recollect as the Chinese alphabet.

(92,) and it will give the date, 1492; examples might be enumerated, but they are forbore, under the impression, that the associations are best formed by the direction of fancy—one observation however cannot be omitted, viz: that if the month is required when any particular event took place, the best way is to have some symbolic figure or emblem significant of that month, associated with the fact and hieroglyphic of the year;—thus, suppose, for

January—A man clothed in fur,
February—A man covered with snow,
March—Boreas,
April—A man dripping with rain,
May—A girl with a basket of flowers,
June—Juno,
July—The genius of America,
August—A man bathing,
September—A man reaping,
October—A man brewing,
November—A man in a fog,
December—A man covered with isicles,

Or any other characteristic trait of the month, as fancy may dictate; all that is necessary, is to let the choice, when made, be permanent. For the

day of the month, if that is required, a mnemonic word must be formed and applied to the month; but where there are a succession of remarkable events in the life of one man, and possibly all taking place in the course of a very few years, (as in that of Bonaparte,) a more summary, and probably to many it may appear a more simple, method can be resorted to ;—for instance, previous to his leaving Elba, there appeared in some of the periodical publications of the day, a list of the most remarkable occurrences of Bonaparte's life, and also of his battles—the Author was then giving lectures upon this system; some of the auditors expressed a wish that an attempt might be made to commit them to memory against the ensuing evening; one of the pupils did attempt, and arranged without any interference, 12 of the remarkable facts, and 22 battles, with that precision, that upon mentioning a battle or an occurrence, he could tell the day, or upon mentioning the day, he could name the circumstance or battle which took place, &c. The method he adopted was this, he took the 12 signs of the zodiac to associate the principal events with, in their regular order;-thus, with Aries, the first sign, his

birth at Ajaccio, August 15th, 1769, was recorded, where a man bathing (August) to cool (15) himself did pant (769) like a Jack o.

Made General at the siege of Toulon, 1793.

Taurus, (2d sign.) was made a general rook on to quiet age=793.*

Defeated the Parisians, Oct. 4th, was defeated with a BREWER'S (Oct.) 1794. key=4, to put a yoke,=794.

Sailed to Egypt, Cancer, (4th sign,) sailed with a GYPSEY, & gave a FLOWER GIRL (May) a fox=20, to pay a tear=798.

Returned from Leó, (5th sign,) returned with the Gypsy, Egypt, Aug. 23d, & saw a man pathing (Aug.) a fig = 23, to quiet it=799.

Declared First Virgo, (6th sign,) in order to console a Consul, Nov. 10, MAN IN A FOG, (Nov.) gave him a box=1799.

Declared Emplement Libra, (7th sign,) weighed an imp, who peror, May 18th, gave a flower girl (May) some beer—
1804.

18, because she was so weak—804.

Declared King Scorpio, (8th sign.) said I am a king, of Italy, May 20, I TELL YE, and made the FLOWER GIRL (May) fix=20, a raw cel=805.

Marriage with Josephine dissolved de Dec. 16th, him because he was Joe so fine, & had a can=16, & would row it=809.

Married Maria Capricornus, (10th sign,) was Loust & Louisa, March gave BOREAS (March) a baubee=11, to rub away=810.

Abdicates the Aquarius, (11th sign,) came down, & wet throne, April 11, A MAN WITH RAIN, (April.) who was at low ebb=11, and was sck=814.

^{*} No month was given.

Arrived at Elbisces, (12th sign.) bit the ELBS of the ba, May 8th, Flower Girl., (May.) & sent her to sea=8, to sit on a rock=\$14.

For the battles, the hieroglyphics in their regular order was made use of-thus, for the first battle, (Lodi, May 11th, 1796,) place a LADY by the GLASS HOUSE, (1,) who seeing the FLOWER GIRL, (May,) gave her a bib=11, to put on=796. the 12th battle, (Vimeria, August 21st, 1808,) suppose the sphinx, (12,) says fye mary for looking at a man bathing, (August,) who does daub= 21, and swear=808. But to conclude this part of the subject; subjoined is a list of the principal battles in which Bonaparte was engaged up to that time, they may now be considerably extended as well as the principal events, (which now all the signs are taken up, can be disposed of in the planets if you choose,) should a wish arise to exercise your judgment and fancy.

- 1. Battle of Lodi, May 11th, 1796.
- 2. Castiglione, August 3d, 1796.
- 3. Arcola, November 16th, 1796.
- 4. Embabe, July 21st, 1798.
- 5. Marengo, June 15th, 1800.
- 6. Hohenlinden, December 8th, 1800.
- 7. Alexandria. March 22d, 1801.
- 8. Austerlitz, December 2d, 1805.

- 9. Jena, October 14th, 1806.
- 10. Eylau, February 3d, 1807.
- 11. Friedland, June 14th, 1807.
- 12. Vimeria, August 21st, 1808.
- 13. Corunna, January 16th, 1809.,
- 14. Esling, May 22d, 1809.
- 15. Wagram, July 6th, 1809.
- 16. Moskwa, September 7th, 1812.
- 17. Lutzen, May 1st, 1813.
- 18. Bautzen, May 20th, 1813.
- 19. Vittoria, June 21st, 1813.
- 20. Dresden, August 28th, 1813.
- 21. Leipsic, October 18th, 1813.
- 22. Montmartre, March 30th, 1814.

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SECTION XII

ANCIENT HISTORY.

As ancient history is nearly upon the same plan as modern, but very few remarks will be necessary. It is indeed admitted, that there are two modes of reckoning—one is from the creation downward, and the other, which is the most usual, is to date back from the birth of Christ, as for instance, we say, Carthage, the rival of Rome, was razed to the ground by the Romans 146 years B. C. (before Christ,) to record events therefore in ancient history, a diagram or ground floor is presented, Plate 1. Fig. 5. where the cipher room contains all events which took place in the first century previous to the Christian æra; the glass room, the second century, &c. connecting the century with the fraction as in modern history for the first thousand years—and as for the remaining 3004, there is so little known, and indeed nothing with certainty, except what is found in the sacred

writings, that it is supposed one room is sufficient—yet for those who wish to have a more accurate division, a plan is easily suggested.

Take three rooms for the first 3004 years after the creation, each containing the events of 1000 years, of course 100 hieroglyphics in each, there will be one for every 10 years, exclusive of the 4 odd years, which will be sufficiently correct, there being such a paucity of facts known relative to those early ages. The multiplying of rooms is no difficulty, but the crowding too much matter into one is perplexing, and will tend to what we principally wish to avoid, that is, confusion, for as long as you have not a lumber room, it is no matter how many others you have.

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SECTION XIII.

DAILY OCCURRENCES.

As probably the application of mnemonics to the recollection of daily occurrences may interest some, as much if not more so than any other use to which they have been applied, we will endeavour to be explicit, not doubting but by paying close attention to the rules which will be pointed out, the method will be attained with facility.

For this purpose, as in history, divide each wall of a room into three large stripes perpendicularly, but all four walls must be used, which will make 12 stripes, for the 12 months, i. c. 3 months, or a quarter of a year, upon each wall, beginning as usual at your left hand, so that the first wall will contain January, February and March, the second wall April, May and June, the third wall July, August and September, and the fourth wall October, November and December. Cast this ar-

rangement over in your thoughts a few minutes, and you will perceive that the middle months on each wall will be exactly faced by one of an opposite character, for the cold month of February on the first wall will be opposite sultry August on the third, and smiling May on the second will be faced by surly November on the fourth wall; practise yourself in this disposition of the months till you can with ease point any of them out promiscuously, and then proceed to divide them for the days, as in Plate 1. Fig. 7. where you observe that each of the large stripes are subdivided into three ladders, and are crossed horizontally into three squares or quadrangles, each of which contain nine places or compartments, with numbers answering to the hieroglyphics in their original order, the decimals as usual place upon the ceiling over the stripes and upon the links which connect the squares together; thus, you have thirty on every stripe, and those months which have 31 days, place the 31st on the floor immediately at the foot of the stripe, but as this would, if every month was numbered alike, repeat the first 31 hieroglyphics so often that it would be confusing and difficult, if not impossible to tell one month

from another, to obviate the difficulty, add 30 to each day of every middle or second month on each wall, and 60 to each day of every third month—thus, the days of January, April, July, and October will remain as they are, but to each day of February, May, August and November, 30 must be added; and to the days of the months of March, June, September and December, 60 must be added, which an inspection of the diagram, Fig. 7. will sufficiently explain.

Agreeable to this plan, what hieroglyphic will stand for the 10th day of January, April, July or October? the lamp, (10;) for the 15th of February, May, August or November, which hieroglyphic? Terra, (45.) What designates the 27th of March, June, September and December? Love, (87.) Thus, you have the hieroglyphics repeated but four times in the year, viz. once a quarter, and that on opposite walls, so that if proper pains are taken to localize the months in their places no difficulty can occur; for whatever circumstance has taken place, or any appointment made that you wish to recollect, associate with the hieroglyphic of the day, some emblem denoting the

fact you wish to remember, in as striking a point of view as you can devise; it must certainly be supposed that some of the leading circumstances live in the memory, for if all is gone there is nothing for the mind to lay hold of—but it is the particulars and the day of the month only which are wanting. For instance, I hear of a boat being upset and 13 people drowned, say on the 21st of March—for some reason or other I wish to remember the fact-accordingly I record it; some time after, some circumstance brings to my recollection the disaster, but I dont call to mind the day when, nor the number of the sufferers, but by recurring to my mnemonic room, I see in the TEMPLE, (81,) upon my first wall a boat bottom upward, with a cage=13, upon it, when all the facts I wish are present to my imagination; because I know by its being on the third stripe of that wall, I must deduct 60, which leaves Suppose you had a friend who 21st of March. sailed for New-Orleans or elsewhere on the 13th of August-place him in a vessel on the back of the ELEPHANT, (43,) on the third wall, and it will be sufficient, for being on the second stripe I deduct 30, which leaves 13th day, and on the third

wall, I know it to be August, &c. &c. Once more it must be repeated, that always, and in every case, and for every purpose, it is indispensably necessary to accustom yourself to localize your ideas by looking at the very spot on the wall where you deposit them, as upon that and association the whole system depends.

SECTION XV.

POETRY, PROSE, and FIGURES.

In order to commit poetry to memory, first consider well the imagery of the poem, so that each line shall form a kind of picture of sensible objects, which will convey the poet's meaning; and it may be observed, that the more striking the imagery, the better the poetry is; indeed it may truly be said, that devoid of imagery it is not poetry.—Then take it verse by verse, and associate them with the hierogliphycs in their successive order—Thus the first stanza of any poem or sonnet with the glass house, if there are four lines in each verse deposite your images one in each corner, if five, place one in the middle, &c. only keep them distinct. One example of the first stanza of Edwin and Emma (by Mallet) shall be given :- The GLASS HOUSE, being seen at the far

end of a winding vale, gives a beautiful image of the first line of that charming poem:—

" Far in the windings of a vale,"

This must be placed at the left top corner of the glass-house square. On the right-hand top corner of the same square place a wood, which seems to shelter some animal that is running fast by it,

" Fast by a shelt'ring wood,"

Tis true the poet's idea of "fast by" is close to, which is the idiom of the language; but was you to simply place the glass house close to a wood you might mistake the words for "close to a shelt'ring wood," and although that is sense and good grammar, yet they are not the precise words of the poet. In the lower left corner of the square place any thing that gives you an idea of health and peace being in a safe place, for instance, a castle gives the idea of safety, with the figure of health looking out of it, and an olive branch in her hand,

"The safe retreat of health and peace,"

Then, for the fourth line, in the lower right-hand corner place a cottage, but as lowly and humble

are in some cases synonymous words, see a humble bee buzzing about the windows, and you have the precise words,

" A humble cottage stood."

Here you have the first verse or stanza, the second must be associated with the Swan, the third with the Bow, &c. &c.

The advantages arising from studying a piece of poetry in this manner, are, 1st. The author must be well understood, therefore a youth cannot get a thing by rote, like a parrot, without understanding it, of course his mind and judgment must be improved, as it exercises the fancy, brightens the ideas, and gives a kind of elasticity to thought. 2dly. It gives a stability and permanency to the thing, making impressions that cannot easily be eradicated. 3dly. By this means, if it should be desirable to recollect any particular verse, or even line, in a poem, it can be called to mind at once by the same method as was pointed out in chronology—if you want the seventh stanza, for instance, look at the seventh hieroglyphic; if the third line in the fifteenth verse is wanted, look at the lower left-hand corner of

the Sun and you have it, &c. &c. If a poem is not divided into stanzas, the most convenient way is to divide it into fives, (indeed most of the best editions of the poets are so divided in the margin,) that is, five for each hieroglyphic; and by this means you may with ease pick out any particular line, for instance, the 34th line is wanted: divide 34 by 5, it gives 6, and 4 remains; therefore it is the fourth line or bottom right-hand corner of the moner, the 7th hieroglyphic; the 5th being in the middle, see what image you have placed there, and it gives the line in question, &c. &c.

Prose.

For prose a very few hieroglyphics are necessary; I should think one of the series would be amply sufficient, and whichever of them you choose; although the series of heads appear to be the most appropriate. In general it is not so much the exact words of an author in prose that we want, as his ideas and meaning; the same may be said of public speaking, whether in hearing or delivering a discourse; order and regularity are

here essentially necessary, for however excellent the ideas may be, and with whatever care the words may be chosen to convey them, if they are not arranged and properly digested under their respective heads, they will certainly fail in making a lasting impression on the mind. It must be confessed, however, that there is a material difference between reading, hearing, and delivering a discourse on any subject; upon each of these, a few hints shall be suggested.

In reading, we have the advantage of reperusal and study, so that if we do not catch the author's idea the first time, another attempt can be made, and time taken to arrange the thoughts and expressions in our own minds; therefore such ideas as we wish to preserve can be regularly deposited in their proper order, as most books are divided into paragraphs, and sections or chapters; in this case you can make use of as many hieroglyphics as you choose, and arrange them as fancy or judgment dictates, either in series upon ladders and steps, (as fig. 6.) where the ladders will do for the grand divisions of an author, and the steps for the minor or subdivisions—or in their original order,

(as fig. 1.) where you may either take a whole stripe for a grand division, (which would be nine in both rooms,) and a hieroglyphic for a subdivision, or use a hieroglyphic for each head, and the corners for the minor divisions, as in poetry; the same minute methods in any of these ways, indeed, could be applied to hearing or speaking, but it is generally thought unnecessary.

In hearing (except, indeed, it is for the purpose of replying) it is, in general, only the substance, or ideas and meaning of the speaker we wish to retain, however, if these take good possession of the understanding, we shall not be very subject to inaccuracies as to the words made use of, especially if they are forcible and well chosen. For this purpose as many of the series of heads as is wanted for the occasion would be recommended, and under each head carefully associate some leading feature or metaphor, the analogy of which will bring the ideas to your recollection.

In arranging ideas for speaking, the same opportunity of meditation is afforded as in reading, and in this case localizing as many of the hiero-

glyphics as are necessary for the purpose upon the opposite wall would be desirable, and here free latitude is given for the arrangements, either concise under heads only, or diversified and extended under particular subivisions, but as intellect is here requisite in addition to memory, the arrangement of the subject under heads, in order to prevent confusion, is surely sufficient, as the analysis must be left to discretion. In forensic oratory, however, a nicer discrimination is necessary, as here the attention, both as speaker and hearer, is requisite; therefore whenever a remark is made which you wish to controvert, an orange, as a cipher, would be a significant memento; but as these remarks are merely meant as hints, and are left so entirely free to fancy, more observations might be thought obtrusive.

Figures.

The recollection of figures is more for amusement in general than any real use, any further than they serve to show the powers of association, and are merely temporary; we shall therefore be as brief as possible, not but instances might occur

which might make it desirable to remember a series of numbers, and when that is the case care must be taken to choose a mnemonic word which will best associate with the hieroglyphic.—Suppose the figures 65075783496897 were given, first divide them into pairs by dotting them off, then take them by two's in order as they stand, make them into words, and place them with the hieroglyphics, thus, 65 = mule, 07 = que, 57 = loop, 83= rogue, 49=i01, 68=nose, 97=ip, therefore a mule standing by the glass house, the Swan with her tail tied into a que, the string of the now made into a loop, &c. &c. will give the rotation of the figures in couples; after looking at this arrangement a few minutes you can easily tell where to find the mnemonic words; if you are asked for a figure in their numerical order, as which is the 4th, 7th, 10th, or 13th figure, all you have to do is to divide the number required by 2. if it is an even number, but if an odd one then add I to it, and dividing by 2 will give the hieroglyphic, and consequently the word which is associated with it. If it is an even number it will be the last letter in the word which is the synonyma of the figures, but if an odd one it will be the

first; thus—What is the 6th figure in the foregoing series? Divide 6 by 2 gives 3, consequently it is with the now, and loop being the word, it is the letter p = 7. Again—What is the 12th figure? Half 12 is 6, therefore, with the retort, the word being nose and the last letter s, 8 is the 12th figure. Once more—What is the 9th figure? Here 9 being an odd number, make it 10 by adding one, then divide 10 by 2 = 5, it will be found with Escularius, who does not care a jot, and it is the first letter j = 4, which is the 9th figure, &c. &c.

There is one thing must be noticed—never use great numerals for this purpose, i. e. reckoning them as such, because the figures' places could not be found unless they were counted as common numerals. There is also another method can be taken if approved of in preference, viz. after pointing off the figures in pairs, take the first two and see what is the hieroglyphic for that number, &c.—for instance, in the series just given the first two are 65, the hieroglyphic of which is JUPITER, the next two 07, is the MOWER, &c. so put Jupiter into the GLASS HOUSE and let the mower ride on the SWAN, &c. &c.—but this



will only answer a temporary purpose, and when you wish to do it very quick, being by no means advisable to confound the hieroglyphics, for in a very little time you could not ascertain which was meant for the mnemonic word, and which for the hieroglyphic to designate its place.

SECTION XV.

CONCLUDING REMARKS.

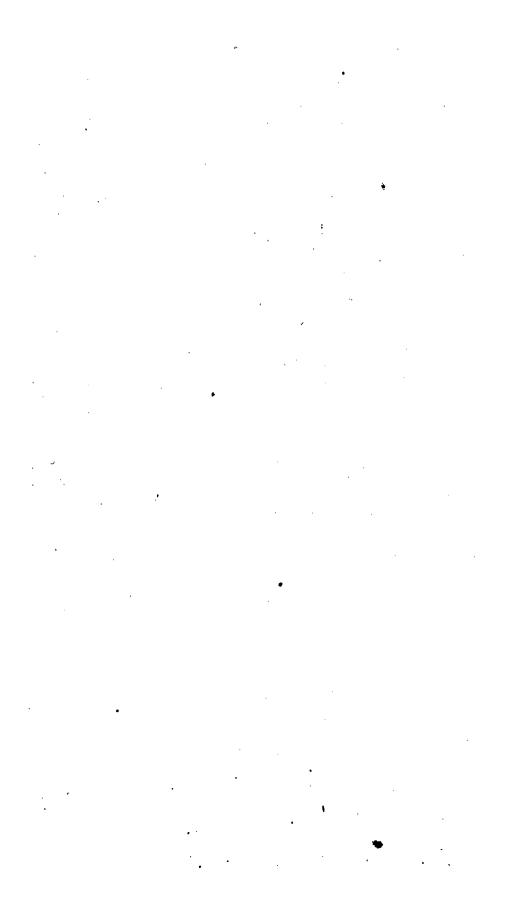
A FEW general observations, as a close, will now be submitted to consideration: 1st. Had the · author been in possession of the gift of divining, so as to know precisely which page would have been perused first, he would undoubtedly there have placed the concluding paragraph of sec. 1. p. 18. being as thoroughly convinced of the necessity of that caution, as he is of the utility and practicability of the system if pursued and studied in a proper manner. 2d. It would be well for the student, to be perfectly satisfied as to the truth and authenticity of a fact before he takes much pains to make mnemonic sentences and associations, as experience warrants the assertion, that when once made and implanted on the mind, they become so indelible as not easily to be effaced—therefore, 3d. Ought not to be used for any trifling or transient purpose, except indeed

the words and associations are so loose and disjointed as not to be very striking. 4th. In general, it has been found by those who have practised this system, that the more grotesque and ludicrous the associations are, the better they are recollected, and the larger the hieroglyphics with their associating emblems, &c. the more lasting will be the impression; for a proof of this proposition we would appeal to an every-day matter. of fact; does not the sight of a large picture, or the perusal of a book printed with a large type make a deeper impression on the retentive faculty than a miniature picture, or a diamond edition? 5th. This system when applied to dates and numerical calculations gives a certainty of reminiscence; there is no such thing as "I think it is somewhere thereabout," or, "It happened sometime thereabout! No, you either remember it correctly or not at all; and further, effective figures, no matter how many places they consist of, are as easily remembered as ciphers. 6th. Be not under any apprehension that thinking of the hieroglyphics or their locality will be any interruption, or draw your attention from the subject you are hearing or reading, for be assured before you can

reap any solid or at least extensive advantage from this system, the names, numbers and places of the hieroglyphics must be as familiar as the way into your pocket. 7th. And lastly, it is not to be supposed that any one would wish to apply this system to every thing, nor even to all the subjects that have been glanced at in this work, but there is a confidence entertained, that whatever may be the favorite pursuit of the student, it can be applied to with advantage and success, for in its application to that particular, they may become masters and proficients.*

^{*} As an addition to what was said, sect. vi. on chronology, a diagram is annexed of the presidents of the United States, without any comments.

l GLASS HOUSE. Washington. Purity.	2 swan. Adams. Quite up.	3 Bow. Jefferson Six ace.
4 couch. Madison. Sweet.	5 ESCULAPIUS. Monroe. Escape.	



MNEMONIC DICTIONARY.



SPECIMEN

OF A

MNEMONIC DICTIONARY.

Note 1. The reason that j, k, and z, are linked together at 4, is because whenever that figure is wanted, there is more difficulty in finding a word answering to it than for any other figure, owing to either of those letters being seldom used; for a contrary reason l only is given for 5, there being no difficulty in finding words in which that letter occurs.

2. Those words marked thus, (*) in the following specimen, may be considered either as great or common numerals, according to circumstances, as it seldom happens that a mistake can be made in the application; for instance, madly must either be 625, or 625,000,000, and if applied to years or miles, the latter would be

3. And had better never be used as a mnemonic word, it being so very useful as a conjunction in a mnemonic sentence.

4. When proper names are used, either as symbols or mnemonic words, they ought to be realized in the person of some one known of that name.

5. As has been already hinted, those acquainted with different languages have a great advantage in making mnemonic words, because as long as they convey ideas to our minds, it is quite immaterial whether they are understood by others.

6. The best method of counting numbers, where consonants are preceded by a great numeral, is to cut off the ciphers, as far as there are consonants to fill them up; thus, in the word church, by cutting off the three last ciphers in the 100,000, (ch,) and supplying their places by r-c-h, = 813, it makes 100,813, otherwise, it would be 100,000,813.

7. The blank places are left under the figures in the succeeding pages to be filled up by the student at pleasure.

b c ~~ 1	$\frac{\mathbf{d} \mathbf{f}}{2}$	g h	$ \begin{array}{c} j k z \\ & \overbrace{4} \end{array} $	1 5	$\underbrace{\overset{m}{\sim}}_{6}^{n}$	p q 7	r s %	t v	₩ ¥
1		2	3	4		5	6	7	8
Ace Ice Beau	Doe Ide Foe	a	Ague	Oak Key* Ooze	Ale Eel Alo	Į.		Ape Pea Pie	Ear Area Ora

bc d f g h jkz l mn p q r s t v w x 1 2 3 4 5 6 7 8 9 0							
9 Oat Tea	Bag	Cap	Face Fob	25 Foal Idol	29 Date Fat	Egg	37 Gap Heap
Toy*	Bug Cage	Coop Cup	Dice	Flea	Idiot	Gig Guage	Ноор
10	14	18	22	26	30	34	38
Cow Box Beaux	Beak Baize Book	Bar Boar Bier	Dead Fife Food	Den Dome Fan	Haw Hew Hoax	Hook Gauze Hazy*	Geese Hare House
11	15	19	23	27	31	35	39
Babe Cub Cocoa	Bale Caul Owl	Bit Cave Boat	Dog Edge Dig	Dip Dupe Fop	Gibe Hub Hob	Hail Eagle Heel	Gate Hat Goat
12 Bead Cadie Coif	16 Bean Bone	20 Daw Dew	24 Dike Duke	28 Deer Fire	32 Head Had	36 Game Gin	Jaw Jew
COIL	Canoe	Fox	Doze	Fur	Hoof	Gun	Ajax

$\sum_{1}^{b} c$	$\stackrel{\text{d}}{\sim} \stackrel{\text{g}}{\sim} \stackrel{\text{g}}{\sim}$	$ \begin{array}{ccc} h & j & k \\ & & 4 \end{array} $	- -	<u>ہ</u> ت	q r 7 ≈ 8	s t y	w x
41	45	49	53	57	61	65	69
Job Kibe Juice	Jail Jole Keel	Jet Kite Java	Leg Log League	Elope Lap Loop	Mace Nib Ounce	Mail Mole Nile	Ant Nave Nut
42	46	50	54	5 8	62	66	70
Jade	Kine	Law	Elk	Liar	Meed	Inn	Pew
Kid Jude	Juno Knee	Low Lax	Lake Leek	Lore Louse	Need India	Nun Mane	Paw Apex
			·. •	•••	•		
43′	47	51	55	59	63	67	71
Jig Jug Keg	Keep Oak pie	Lace Lice Lobe	All Ell Ill	Lave Olive Lute	Image Nag Omega	Map Imp Nape	Pica Piece Epic
44	48	5 2	56	60	64	68	72
Joke Oakyoke Oakkey*		Load Leaf Loaf	Alum Elm Lion	Maw Mow Onyx	Maize Meek Nook	Amos Mayor Noose	Pod Pied Quoif

b c (m r	h jk 2	2 1 1 5	m n p	q r :	s t v	₩ ¥ 0
73	77	81	85	89	93	97	
Pig Page Peg	Equip Pop Pipe	Orb Rice Sob	Rail Earl Isle	Soot Root Suet	Outgo Vogue Tug	Top Type Tape	
74 Peak	78 Opera	82 Rood	86 Rum	90 Tow	94 Take	98 Oats	
Pike Quake	Peas Quire	Road Sod	Iron · Seine	Vex View	Took Tike	Tree	•
75	79	83	87	91	95	99	
Pole Pool Plea	Opiate Pot Quota	Rag Sage Shoe*	Rape Sap Soap	Tub Voice Tube	Veal Viol Tile	Vote Outvie Teat	
76	80	84	88	92	96		
Opium Paín Queen	Row Sow Sex	Rake Rook Seize	Osier Rose Issue	Toad Void Evade	Oven Team Vine		
	1	1	1	F	!	1	

$ \begin{array}{ccccc} h & j & k & z & 1 \\ & & & & & & \\ 3 & & 4 & & 5 \end{array} $	m n p q r 6 7	s t v w x ~ ~ ~~ 3 9 0
105	110	115
Stool* Bowl Steel*	Buy a cow Buy a box Boy box	Cable Bible Stable*
106	- 111	116
Stain* Boxen Buxom	Cubic Buy a baby* Bib a boy*	Baboon Cabin Bacon
107	112	117
Stop* *tep* Stoop*	Accede Buy beef Icy abode	Buy a cape Buy a cap Buy a cup
108	113	118
Boxer B. wer Stare*	Couch* Coach* Beech*	Abacus Occur Because
109	114	119
State* Statue* Stave*	Cuckoo Stick* Buck	Abbot Accite Cubit
	105 Stool* Bowl Steel* 106 Stain* Boxen Buxom 107 Stop* Stoop* 108 Boxer B. wer Stare* 109 State* Statue*	105 106 Stool* Bowl Steel* Buy a cow Buy a box Boy box 106 111 Stain* Boxen Buxom 107 112 Stop* Steep* Stoop* 108 113 Boxer B. wer Stare* Couch* Coach* Beech* 109 114 State* Statue* Cuckoo Statue* Cuckoo Statue*

$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	~ ~ ~
120	125	130	135
Bedew Codex Buy a fox	Caudle Beadle Stifle*	A big ox Chew* A big axe	A big eel Beagle Abigail
121	126	131	136
Abduce A bad beau Abide a bee	Baden Buy a fan Bad aim	Chub* Chace* We go by	Chain* Bagnio China*
122	127	132	137
Coffee Staff* Buff	Buy a fop Beef pie A bad ape	Caged Behead Chief*	Chip* Chop* Cheap*
123	128	133	138
Badge Boy dig Budge	Cedar Before Cider	Bough Cough Buy a hog	Cheese* Chaise* Chair*
124	129	134	139
By a dyke Bid Joe A bad key*	Abaft Befit Acidity*	Choke* A big oak Cheek*	A bee hive Bigot Achieve*

ART OF MEMORY.

	$ \begin{array}{cccc} h & jkz & l \\ 3 & 4 & 5 \end{array} $	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	s t v w x	
140	145	150	155	
Bake ox By a jew Buy a jaw	Cajole Weak lye Bake eel	Calix Claw By-law	Ball Bull Bell	
141	146	151	156	
Bake a bee A weak boy By a job	Cozen Wake me Bake one	Club Calico Bulb	Balm, Bloom Clan	
142	147	152	157	
Baked Booked Cooked	Bake a pie Bake a pea Icy oak pie	Blade Calf Cloud	Clap Clip Oblique	
143	148	153	158	
Buy a jug A week ago A weak hoe	Books Cakes Steaks*	Clog Bulge Obligee	Bolus Boiler Cooler	
144	149	154	159	
Buzz Bake a jay* Wake Joe Weak tea Bake a toe Bake it		Stalk* Bulk Blaze	Belt Colt Bolt	

$ \begin{array}{cccccccccccccccccccccccccccccccccccc$					
160	165	170	175		
Can we Come ox Come away*	Camel Canal Buy an eel	Buy a pew lcy paw	Cupola Steeple* Couple		
161	166	171	176		
Bomb Comb Cynic	Comma Canine Acumen	Weep beau* Buy a piece Weep boy	Capon Buy a pan Buy opium		
162	167	172	177		
Band Candy* Stoned*	Camp Canopy* Stump*	Biped Cupid Stupid*	Bopeep Cap-a-pie Buy a pipe		
163	168	173	178		
Bung Coinage Stung*	Bemire Coiner Can you say*	Buy a pig Weep Aga Wipe a hoe	Cooper Copse Capias		
164	169	174	179		
Bank Stanza* Stink*	Cent Bayonet Comet	Buy a pike Weep Joe	Boquet Be quiet Acquit		
	1	,			

180	185	190	195
Crow	Broil	Buy two	Actual
Straw*	Coral	Buy tow	Bevel
Eyebrow*	Barley*	Icy view	Coeval
181	186	191	198
Barb	Acorn	Civic	Bataan
Baro Brac€	Barn	Buy a tub	Batoon Beaten
Crab	Broom	Buy a tube	Auction
100	10#	192	107
182	187	192	197
Beard	Carp	Betide	Cut a pie
Card	Crape	Booted	Buy tape
Curd	Strap*	By a toad	Buy a top
183	188	193	198
100	100		
Barge	Burr	Bath*	Boats
Crag	Cassia	Booth*	Cities
Cash*	Corse	Both*	Boots
184	189	194	199
Brook	Cart	Betake	Civet
Cask	Cruet	Betook	Octavo
Cork	Street*	Boy take	Statute*

200	205	210	215	
Dust* Fist* Fusty*	Dust* Fowl		Fable Docile Foible	
201	206	211	216	
Fix a boy* Few obey*	Down Dawn Fawn	Fye cub Do boy obey* Dye a bib	Deacon If I be in If I be on	
202	207	212	217	
Dowdy* Fixed Few die	I do weep A fox pie Do weep	Decade If I bid Decide	Dye a cap Daub ape Dye a cape	
203	208	213	218	
If we go Do we go Fix a hoe	Dower If I wear Dowry*	Dye a bag Do beg Dye a cage	Dauber Faces Fibre	
204	209	214	219	
lf I wake Dewy oak Fix a ke y*	A dewy eve Do wait If I weave	Deck Duck Dye a cake	Ducat Faucet Edict	

b c d f g	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\frac{\mathbf{m} \ \mathbf{n}}{6} \frac{\mathbf{p} \ \mathbf{q}}{7} \mathbf{r}$	* * * * * * * * * * * * * * * * * * *	
220	225	230	235	
Affix A dead ox Dye a fox	Feudal Offal Defile	Dig away* Do how Do go away*	A day holy* I do beal Fig oil	
221	226	231	236	
Deface Edifice Office	Deaden Defame Diadem	Do go by* Dog obey* Dig boy*	Deign Dogma Do go on	
222	227	232	237	
Faded Doff Affied	A dead ape Do I dip If I dip	Do good Do go, adieu If I go I die	A fig pie Do go up Dug up	
223	228	233	238	
Dodge Fadge If I do go	Adder Feeder Udder	Dough Do go aga Fie oh aga	Adhere Degree Figure	
224	229 .	234	239	
A dead oak Feed a jay* Do doze Deft Defeat Daft		I do gaze Do go Joe Dig oak	Digit Fagot Do hit	

240	245	250	255
Die Jew	Adieu jail	Flaw	Doll
Adieu Je₩	It I jole you*	Flax	Flail
Fie Jew	Duke ale	Flow	Felloe
241	246	251	256
Do a job	Adjoin	Fleece	Felon
Do Joe obey*	Dizen	Fleecy*	Film
Duke buy*	Dozen	Daily obey*	Flame
242	247	252	257
Dye a kid	If I keep	Delf.	Flap
. • .	Do keep	Field	Flip
	Doze ape	Fold	Flop
243	248	253	258
If I jog	Adjure	Deluge	Floor
Dye a keg	Dukes	Flag	Flour
Dye a jug	Dikes	Dialogue	Fleas
244	249	254	259
Fuzz	Adjute	Flook	Dolt
lf l joke	Die Jove	Folk	Fleet
Do I joke	Adieu Java	Idolize	Flute

1 2	3 4 5		8 9
26 0	265	270	275
Adieu now	Female	If I paw	Deeply*
Do mix	Dimly*	Do paw	Do peel
Do now	Family*	Do pay away	Dye a pail
261	266	271	276
Dunce	Demon	Deep bay*	Depone
Fence	Domain	Dip a boy*	Deep aim
Audience	Famine	Do ape a bey*	Dip any*
262	267	272	277
Denude	l nome	Duped	If I peep
Fiend	Damp Dump	Do ape die	Do peep
Fund	Dye an ape	If 1 paid	Dye a pipe
263	268	273	278
		•	
Dung	Demure	Do a page	Diaper
Fang	Donor	If a pig	Dips
Damage	Finis	Dye a pig	Fops
264	269	274	279
Dank	Daunt	If I quake	Adept
A fine oak	Font	Dip a key*	Deputy*
Fine yoke	Dimity*	A deep yoke	Depot

	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\frac{\mathbf{m} \ \mathbf{n} \ \mathbf{p} \ \mathbf{q}}{6} \frac{\mathbf{m}}{7}$	
280	285	290	295
Draw	Ferule	A fat ox	Devil
Drew	Frail	Due a tax	Dotal
Do raw	Fusil	Dye tow	Fatal
281	286	291	296
	200		
Doric	Drum	Advice	Detain
Farce	Fern	Device	Divine
Africa	Frame	A fat boy*	Edition
282	287	292	297
Deride	Drip	Devoid	A fat pie
Druid	Droop	Divide	Do tap
Ford	Drop	Fæted	Dye a top
283		293	298
			1
Drug	Foss Friar	Dotage	After
Frog Dish	Furious	Fatigue Death	Devise Diver
Dist	Furious	Death	Divet
281	289	294	299
Desk	Dart	Fitz	Devote
Drake	Dirt	Do take	Devout
Fork	Fruit	A fat jay*	Ditto
	l	1	1 :

Guest* Hoist* Hoist* Hoax a lie Go box Gable Gable Oh Abel 301 306 311 316 Hew ice Hoax a bee Hoax a boy* He won Go cub Gay bob Ah Cain Go by me Go by me Go wipe Go weep Hoax a pie Go wade Go weep Hoax a pie Go beg Go bare Go bare Go wake Hew a toy* Go wave Hoov a toy* Go box Gable Goble Gable Go bow Go cub Gabion Ah Cain Go by me Go by me 317 Gay bed Go abide Go abide Go bow Go bow Go beg Go bare Go bare Go bare Go bear Go bear Go bear Go beat Hawk Go wake Hoov a toy* Go box Go box Gobe Gobe Go box Gobe Go box Gobe Go bow Go beat Habit Hook a toy* Go boy Go beat Habit Go boy Go boy Go beat Habit Hook a toy* Go boy Go beat Habit Hook a toy* Go boy Go beat Habit Hook a toy* Go boy Go boy Go beat Habit Hook a toy* Go boy Go boy Go beat Habit Hook a toy* Go boy Go boy Go beat Habit Hook a toy* Go boy Go boy Go beat Habit Hook a toy* Go boy Go bo	1 2 3	3 4 5	6 7 8	9 0
Hoist* Hoax a lie Gay beaux Gable Oh Abel 301 306 311 316 Gay beaux Go bow Gable Oh Abel 301 306 311 316 Gabie Oh Abel 307 302 307 302 307 312 317 Gay beaux Gabie Oh Abel Gabion Ah Cain Go by me Go by me Go by me Go weep Hoax a pie Go weep Hoax a pie Go bed Go bare Hawk Go wake	300	305	310	315
Host* Hoax a lie Go bow Oh Abel 301 306 311 316 Go cub Gabion Ah Cain Go by me 302 307 312 317 He owed He won Go wipe Go weep Hoax a pie Go wade Go wipe Go bid Gay cap Oh obey ape A gay copy* Go beg Go beg Go beg Go beg Go beg Go bear Ah who Go wait Go wait Go wave Hawk Go wake Go wave Hoax a lie Go bow Oh Abel Oh Abel Go cub Gabion Ah Cain Go by me Gay bed Go abide Go abide Go bid Go beg Go cure Go bare Go bear Go bear Go beat Hawk Go wait Go wave Hack Hock Go beat Habit	Guest*	Howl	Go box	Gabel
301 306 311 316 Go cub Go cub Gabion Ah Cain Go by me 302 307 312 317 He owed He won 308 309 304 309 304 309 314 319 Hawk Go wake Go wake Go wake Go wake Go wake 301 302 303 304 305 306 307 317 Go cub Gabion Ah Cain Go by me Go beat Hack Hock Habit	Hoist*	Hoax oil	Gay beaux	Gable
Hew ice Hoax a bee Hoax a boy* 302 307 312 317 He owed Hewed Go wipe Go abide Go abide Go by me 303 308 308 313 318 Gay wag Hoax a pie Go beg Go bare How I go Ah who 309 314 319 Hawk Go wake Go wave Hook Hake Go wave Hook Go cub Gabion Ah Cain Go by me Gay bed Go abide Go abide Go abide Go beg Go cure Go bare Go bare Go bear Go bear Go beat Hack Hock Go beat Habit	Host*	Hoax a lie	Go bow	Oh Abel
Hoax a bee How may you* He won 302 307 312 317 He owed Go wipe Go abide Go abide Go bid 308 308 308 308 313 318 Gay wag He was Go wear How I go Ah who 304 309 304 309 314 319 Hawk Go wate Go weave Hock Go bob Ah Cain Go by me And Cain Go by me And Cain Go by me And Cain Go by me Gay bob Ah Cain Go by me Go by me Gay bob Ah Cain Go by me Go by me Go beg Go abide A gay copy* Go beg Go cure Go bare Go bare Go bear And Go wait Hack Go beat Habit	301	306	311	316
Hoax a bee How may you* He won 302 307 312 317 He owed Go wipe Go weep Hoax a pie 308 308 308 313 318 Gay wag He was Go wear How I go Ah who 304 309 304 309 314 319 Hawk Go wake Go wake Go wake Go wake Hoax a pie Gay bob Ah Cain Go by me Agay cap Gay bed Go abide Go bid A gay copy* Go beg Go cure Go bare Go bare Go bear A gay cage Go beat Hack Go beat Hock Hock Go beat Habit	Uom ios	Corn	Goonb	Gabian
Hoax a boy* He won 302 307 312 317 He owed Go wipe Go weep Hoax a pie Go bid Gay cap Oh obey ape A gay copy* 303 308 313 318 Gay wag How l go Ah who 309 314 319 Hawk Go wate Hock Go beg Go cure Go bare Go bear Go bear Go beat Hack Hock Hock Hobit		-		
He owed Hewed Go weep Hoax a pie Go bid Go cap Oh obey ape A gay copy* 303 308 308 313 318 Gay wag How l go Ah who 309 304 309 309 314 319 Hawk Go wait Go wave Go wave Go beat Hock Go beat Habit				
Hewed Go wade Go weep Hoax a pie Go abide Go bid Oh obey ape A gay copy* 303 308 S13 S18 Gay wag How l go Ah who Go wear Haws Go each* A gay cage Go bear Go bare Go bare Go bear Hawk Go wait Go wave Hack Hock Go beat Habit	302	307	312	317
Hewed Go wade Go weep Hoax a pie Go abide Go bid Oh obey ape A gay copy* 303 308 S13 S18 Gay wag How l go Ah who Go wear Haws Go each* A gay cage Go bear Go bare Go bare Go bear Hawk Go wait Go wave Hack Hock Go beat Habit				
Go wade Hoax a pie Go bid A gay copy* 303 308 318 Gay wag He was Go beg Go cure Go each* A gay cage Go bare Go bear 304 309 314 319 Hawk Go wait Go wake Go weave Hock Go beat Habit				
303 308 313 318 Gay wag He was Go beg Go cure Go each* Ab who Haws A gay cage Go bear 304 309 314 319 Hawk Go wait Go wave Hock Go beat Habit				Oh obey ape
Gay wag He was Go wear Haws Go each* A gay cage Go bear Go bare Go bare Go bear 304 309 314 319 Hawk Go wait Go wave Hack Hock Habit	GO Wade	Goax a bre	do biu	A gay copy"
How I go Ah who Go wear Haws Go each* A gay cage Go bear 304 309 314 319 Hawk Go wait Go wave Hock Hock Habit	305	308	313	318
How I go Ah who Go wear Haws Go each* A gay cage Go bear 304 309 314 319 Hawk Go wait Go wave Hock Hock Habit	Gay wag	He was	Go beg	Go cure
304 309 314 319 Hawk Go wait Hack Go beat Hock Habit	How I go	Go wear		
Hawk Go wait Hack Go beat Go wake Go weave Hock Habit	Ah who	Haws	A gay cage	Go bear
Go wake Go weave Hock Habit	304	309	314	319
Go wake Go weave Hock Habit	Howk	Go wait	Hack	Go here
	Hoax a key*	Hoax a toy*	Go bake	Go buy it

b c d f g	$ \begin{array}{cccc} h & j k z & 1 \\ 3 & 4 & 5 \end{array} $	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	s t v w x S 9 0
320	325	330	335
Go fix Go doxy* Go few	Goodly* Go feel Ah fool	Huge ewe Go hew Huge ox	Oh eagle Huge eel Bug ale
321	326	331	336
Good by* Good boy* Good bay*	Hoiden Good 1im Hide me	Huge boy* Huge bee Guage a boy*	A gay hen Go bome A gay gun
322	327	332	337
Gaff Huff Gidd y*	Go dip Go fop Go deep	Go hide Huge oaf A gay hood	Huge pie Egg pie Go hop
323	328	333	338
Hedge Guidage Hodge	Heifer Goods Hideous	High Hugh Hough	Hegira tie has A gay hero
324	329	334	339
Aged oak A gay duke Go doze	Haft Gift Ague-fit	Huge oak Huge yoke Huge key*	Eight Ought A gay hat

1 2	$ \stackrel{h}{\sim} \stackrel{jkz}{\sim} \stackrel{1}{\sim} \stackrel{5}{\sim} $	6 7	8 9
340	345	350	355
Go Jew	Hazel	Glow	Gull
Hook ox	Age zeal	Glew	Hall
Hook a ewe	A gay jail	Go low	Hull
341	346	351	356
Go Job	Go Jane	Glebe	Gleam
Oh Job Hook a beau	Go join	Glib Globe	Gloom Helm
	•	Gione	
342	347	352	357
Hooked	Go keep	Glade	Gulp
Go Jude	Age keep	Gold	Help
A gay kid	A gay oak pie	Gulf	Ugly ape
343	348	353	358
. 1	G	Week amon	Carlon
A gay jug	Go jeer Oh jury	Heal ague Heal age	Gaoler Glare
Hook hay*	A gay oak oar		Glaire
344	349	354	359
Huzza	A gay kite	Glaze	Eaglet
Go joke	Gay Java	Gloze	Glove Hilt
Aga joke	Oh Jove	Hulk	(mill

360	3 4 5	6 7	375
Gnaw Agnew Go now	Genial A gay meal A gay inlay	Hop away* Go up ox	Go equal Go play* A gay pail
361	366	371	376
Agency* A gay neice Hence	Human Genuine Hymn	Hop by* Go apiece Gay pica	Go open Go upon Go pay me
362	367	372	377
Hand Hind Hound	Gimp Hemp Go mope	Hoped Hope die Oh I paid	Happy* Hop up Oh papa
363	368	373	378
Gang Going Hinge	Genius Guns Igneous	Oh pay Aga A gay pig A gay page	Gypsy* Hops Hopes
364	369	374	379
Ganza Hank Agonize	Agent Giant Gnat	Hop Joe Go pay Joe Go puke	Go pat Go put He put

		· · · · · · · · · · · · · · · · · · ·	8 9
380	385	390	395
Grow	Girl	A gay view	Hovel
Grew	Gruel	A gouty ox	A gay tile
Go row	Hurl .		Age toil
381	386	391	396
	1	4	
Garb	Grain	Havoc "	Haven
Grub Herb	Heron	A gouty boy* I hate a bee	Heaven Hoven
nerd	Horn	nate a nee	noven
382	387	392	397
Grief	Grape	Go to day*	Get a pea
Guard	Harp	Go tidy*	Get a pie
Herd	Hasp	A hot day*	Hot pie
	_		
383	388	393	398
Gorge	Grouse	Goeth*	Guitar
Grig	Horse	Hath*	Heater
Gash*	Hosier	Heath*	Guts
384	389	394	399
004	303	302	
Greeze	Grate	He took	Agitate
Hark	Grave	Go take	Gavot
Husk	Hart	A gouty jay*	Go to it

1 2 5	₹ ¥ 5	6 7 8	9 0
400	405	410	415
Joist*	Jewel	Oak box	Jubilee
Joust*	Jowl	Joe coax	A key boil
Just*	Jew lo	Joe bow	Joe buy oil
401	406	411	416
	-,-		
Jew boy*	Joe won	Job obey*	Oak beam
Jew obey*	Jew aim	Yoke a cub*	Oak cane
A Jew a beau	•	Yoke a baby*	Oak bone
402	407	412	417
A Jew oaf	A jaw pie	Joe abide	Oak cap
Jew adieu	Joe wipe	Oak bed	Joe buy a pie
	Jew ape	Job die	Oak coop
403	408	413	418
Jew go	Jaws	Oak cage	Jocose
Joe whe	Jews	Yoke a bug*	Oak bar
	Joe wear	Joe buy a hoe	Oak bier
404	409	414	419
Jaw-ake	Joe wait	Keck	Eject
Jew key	Joe weave	Kick	Oak boat
Joe awake	Jew eat	Jockey*	Joe cut

b c d. f g h jkz 1 mn p q r s t v w x 1 2 3 4 5 6 7 8 9 0				
420	425	430	435	
Joe fix Key a fox	Joyful Joe feel Yoke a fool*	Joe how Joe hoe away*	Oak goal Yoke a gay eel	
421	426	431	436	
Zodiac Joe dye a bee	Kidney* Joe deny*	Joe go buy* Jog a bee	Oak gun Joe gain Oak gum	
422	427	432	437	
Jaded Oak fife Jude die	Kid pie Joe dip Joe dye a pie	Oak head Joe guide Joe had	Joe hep Joe go up Oak hoop	
423	428	433	438	
Judge Jade go Joe dig	Oak door Joe do say* Jude say	Jagg Oak guage Oak gig	Jog us Joe here Joe hear	
424	429	434	439	
Judaize Yoke a duke* Joe dye a key*	Joe do eat Oak feet Jude eat	Joe gaze Jog Joe	Oak gate Joe gave Jog it	

440	445	450	405
Joke away* Joke a ewe	A joke lie Oak keel	Jole away* Jail & woe	Kill Jelly# Jolly#
441	446	451	456
Yoke Job ^e Joe yoke a bee Joke a beau	Joke on Yoke Juno* Yoke kine	Yoke a looby Joe lay ice*	Kiln Julian
442	447	452	457
Joke a foe Yoke Joe do* Yoke a jade	Joe keep Oak jay pie Joke a pie	Oak lid Joe laid Joe lead	Jalop Julop Kelp
443	448	453	458
Oak jug Oak keg Joe jog	Joker Jokes Oak jar	Zoology* Oak log	Jailor Jealous Zealous
444	449	454	459
Joe joke Joke a jay*	Oak kit Joe yoke a toe	Joe oil a key* Jail key*	Jolt Jilt Joe leave

	3 4 5	6 7 8	9 0
4d0	465	470	475
Know Knew Joe mix	Kneel Joe only Yoke a mole*	Oak pew Keep woe	Joe play® Oak pail Yoke a quail
461	466	471	476
Kimbo Knab Knob	Joe I am in Jane may*	Keep a boy Oak piece	Japan Oak piano
462	467	472	477
Kind	Jump	Joe paid you*	Oak pipe
Knead Knife	Knap Juno pay*	Keep a foe Oak pod	Keep a pie Keep pay*
463	468	473	478
King	Junior	Oak peg	Keeper ;
Oak mug Oak image	Joiner Knare	Yoke a pig* Oak page	Oak pear
464	460	474	479
Junk	Joint	Joe puke	Kept
Join Joe	Knave Knot	Keep Joe Joe quiz	Joe quit

m m i	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	m n p q r	s t v w x
	1 485		
480	485	490	495 .
Joe saw	Oak rule	Joe you vex	Jovial
Jar awa y*	Oak rail	Joe tax	Oak oval
Oak saw	Oak reel		Oak avail
481	486	491	496
Joe rub	Koran	Oak tub	Zootomy*
Oak robe	Joe so am I Joe ran	Oak tube Joe eat a bee	Oak vane Oak oven
	Joe lan	Joe eat a bee	Oak oven
482	487	492	497
-102			1
Joe said	Joe are you up		Oak top
Joe read	Joe repay*	Joe to day	Joe eat a pie
Oak rod	Јое геар	·	Oak type
483	488	493	498
	-100		700
Josiah	Kiss	Joe out go	Oak tree
Jeer age	Jurer	Joe tye a hoe	Joe tear
Joe urge	Joe arise	Joe eat hay*	A jay tree
484	489	494	499
Kerk	Jeer at	Joe took	Oak vat
Jerk	Jury eat	Joe take	Joe vote
Joe ask	Joe set	Joe you teaze*	
•			

be d f g	$ \begin{array}{ccccc} h & jkz & 1 \\ & 4 & 5 \end{array} $	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	s t v w x 8 9 0
500	505	510	515
Last* List* Lusty*	Low eel Lay axle	Elbow Oil a box	Label Local Libel
501	506	511	516
A low boy*	Lawn Low aim	Lobby* Oil a cub	Albion Oil a bone
502	507	512	517
Lewd Laxed	A low ape	Laced Lucid Lay a body	Lay a сору*
503	508	513	518
Oil a wig A low age	Always Elixir Luxury*	Oil a cage Lay a bag	Labour Lucre Libra
504	509	514	519
I lay awake A low oak	Eli exit Lowt	Lack Luck Lock	Elect Lay a bait Lay a bet
			1

~ ~ ~ ~	$ \begin{array}{ccccc} h & j & z & 1 \\ & & & & \\ 3 & & 4 & 5 \end{array} $	m n p q r 6 7 2	s t v w x
520	525	530	535
Lay few Oil·a fox Load away*	Ladle Lay fùel Oil a fool	Lug away* Lag ox	Legal Oil a goal
521	526	531	536
Old boy* Load a boy*	Leaden Loaden Laden	Legacy* Lug a boy*	Legion Logan Lugen
522	527	532	537
Load a foe I lay dead	Lady pay* I lay deep A lady pie	Lug a foe	Oil a hoop Lug a pie Lay a heap
523	528	533	538
Ledge A lady gay* A led aga	Leader Loader Older	Laugh Oil a gig Lug a hoe	Ale-house Oil-hair Lay here
524	529	534	539
I led Joe Old oak Old key*	Left Lift Loft	Oil a hook Lug Joe	Legate Legatee Oil a gate

bc df g	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	تت س
540	545	1 550	555
Look away Oil a jaw	Look Eli	Allow Yellow* All away*	Loll Lull
541	546	551	558
A lazy beau A lazy boy* I like ice	Liken Look on Look in	All obey* All ice	All aim All may*
542	547	552	557
A leaky day* Oil a kid	Look up Lazy ape Leek pie	Allude All day* Ill day*	All pay* All pie All up
543	548	553	558
Leakage Oil a keg Look aga	Lazar Look o'er Like Asia	All go All hay* All hoe	Allure Lilies All air
544	549	554	559
Look Joe Like a key* Lay a joke	Look out I like tea Oil a kite	All oak All ake All joy*	Allot Ali eat Ali out

xxviii

b c d f g	$ \begin{array}{cccc} h & jkz & l \\ 3 & 4 & 5 \end{array} $	m n p q r 6 7 8	s t v w x
500	565	570	575
Lynx A lame ox Lain away*	Lineal A lame eel Lay a meal	Leap away* Oil a paw	A lapel Leap eel Oil a pail
561	566	571	576
Lamb Lance Limb	Lamina Lemon Limn	Lo-peace Leap boy* Laquey-boy*	Leap may I* Leap on
562	567	572	577
Land Lend Lamed	Lamp Limp Lump	Liquid Liquify*	Leap up
563	568	573	578
Along Lineage Long	Limes Lines Alms	Alpha Laquey-go	Lips Leper Liquor
564	569	574	579
Lank Link Lame Joe	Alienate Lint Limit	Leap Joe Lip-ake	Leap out Leap it Oil a pot
	1	t ()

$\frac{b}{1} \frac{d}{2} g$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	· ~ · ·
580	585	590	595
A loose ox Oil a saw A lousy ox	Laurel Lose oil	A late ox Leave axe	Level Lively* Lovely*
581	586	491	596
Lease a boy*	Learn Larum Loosen	Lye tub Oil a tub Let a boy*	Latin Leaven Lotion
582	587	592	597
Laird Lard Lord	Lisp Oil a rope Also pay*	Elated Livid Loved	Levee pay* I love pie I love pay*
583	588	593	598
Large Lash* Oil a rag	Lass Leisure Oil a sore	Lath* Loath* Loathe*	Laver Liver Altar
584	589	594	599
Lark Lurk Oil a rake	Alert You also eat Lour at	A live oak Leave Joe Let Joe	Levite I love tea Leave out

b c d f g 1 2	$ \begin{array}{ccccc} h & j k z & 1 \\ $	$\frac{\mathbf{m} \ \mathbf{n} \ \mathbf{p} \ \mathbf{q} \ \mathbf{r}}{6} 7 8$	w. w
600	605	610	615
Mist*	New ale	A pice ox	Amble
Nest*	New oil	No bow	Ancle
Mast*	Now lay*	One bow	Noble
			•
601	606	611	616
A new beau	Maxim	Imbibe	Income
A new bay*	Now aim	A nice boy*	A nice aim
602	607	612	617
Mixed	Now pay*	I am bad	A nice pie
Now oaf	A-new ape	A nice day*	Nice pay*
A new foe		I am by a foe	,
	-		<u> </u>
603	608	613	618
Now go	Mower	Much*	Amber
A new hoe	News	I am big	Embryo*
New hąy*	Noxious	A nice hoe	lmbrue
604	609	614	619
Now Joe	Anxiety*	Mock	Emaciate
A new key*	Next	Muck	Enact
May I wake	Mixt	Neck	Incite

1 2	3 4 5	6 7	8 9 0
620	625	630	635
Endow Index Meadow	Medal Medley* Model	A young ox*	Angel Angle Mogul
621	626	631	636
A needy boy* Mud ace	Infamy* Madam May I dine	Young bee* Young boy* Young beau*	Enigma Engine Imagine
622	627	632	637
Muff Muddy*	I need pay* I made a pie	My head May I hide you* A young foe*	May I go pay* No I hope
623	628	633	
Indigo I need a hoe	Infuse [®] Moidore Under	Magog Engage Neigh	638 Meagre Negro Younger
624	629	634	639
I need a key* I made a key*	Indite Mediate Unfit	Young oak Young Joe*	Ingot My hat In a hut

4 5 646 Make lye	6 7 8 050 Aim low Nail away*	9 0 655 Mall Mill
	Aim low	Mall
		Mull
646	651	656
Enjoin Make aim Make me	Malice Unlace Nay looby	Only me Me alone One lane
647	652	657
An oak pie Make a pie Meek ape	Melody* Mild Mould	May I leap on a lip
648	653	658
njure njury Najor	Analogy* Malaga One log	May I also May you also Nails
649	654	659
fake it Take out Take tea	Milk Unlike May I look	Emulate Inlet Militia
	fake aim fake me 647 In oak pie fake a pie feek ape 648 njure njury fajor 649 fake it fake out	Make aim Make aim Make me May looby 647 652 Melody* Mild Mould 648 653 Analogy* Malaga One log 649 Milk Mulke Milk Mulke Milk Mulke

b c d f g	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	
660	665	670	675
Annex Minx May I now	Animal Enamel Menial	Any pew My pew One pew	Impale May-pole Maple
661	666	671	676
Menace Mince My niece	Manna Minion Mummy*	May I pay a boy*	In a pan No pun Mope on
662	667	672	677
Amend Maimed Mound	Mump Any map Ann pay*	Impede Nay I paid No I paid you*	Nip a que
663	668	673	678
Mange Mango Manage	Manure Minor Ominous	On a peg On a pig One page	Impious Umpire Empire
664	669	674	679
Monk Monkey* Am I inky*	Animate Emmet Mint	Nip Joe Mop a key* No quiz	Empty* Impute In a pet

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680	1 685	1 690	1 695
000		1	1
My saw	Enrol	Move away*	Invil
My sow	Marl	No tax	Initial
	Moral	Meet ox	Navel
681	686	691	696
Music	Morn	Antic	Anatom y
America	Mason	Invoice	Emotion
Mercy*	Museum	Novice	Motion
682	687	692	697
Aniseed	Mosque	Invade	Antique
Inroad	May I repay*	Notify*	Move a pie
Unsafe	No I repay*	May I to day*	Note a que
683	688	693	698
Emerge	Miser	Mouth*	Meteor
Unrig	Moss	Mouthe*	Mitre
Mash*	Nurse	Am I to go	Nitre
684	689	694	699
Mark	Merit	Invoke	Imitata
mark Mask	Nerve		Imitate Invite
Musk	Inert	you*	Motto

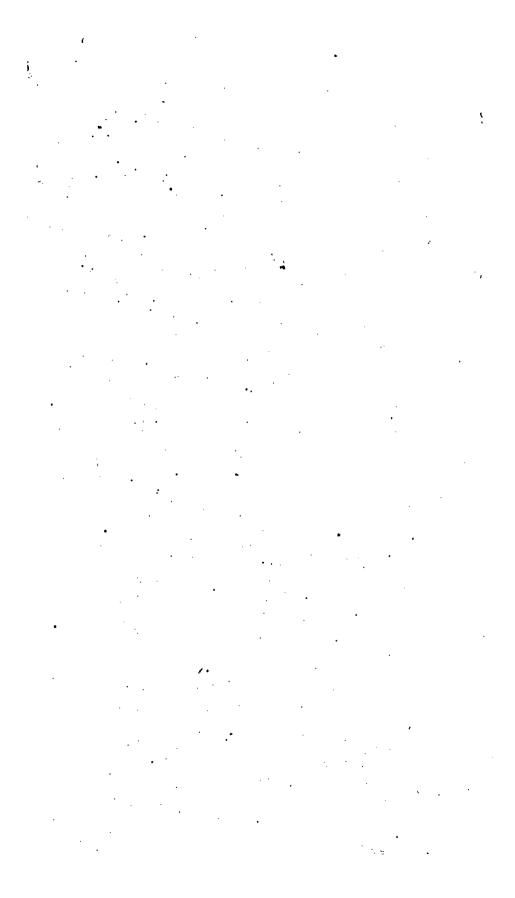
b c d f g	$ \begin{array}{ccccc} h & j & k & z & 1 \\ $	m n p q r 6 7 5	s t v w x S 9 0
700	705	710	715
Post* Quest* Paste*	Powel	Pea-box	Payable Pea boil
701	706	711	716
Paw a bee Pox ace	Pawn	Pay a cub	Pay Ben
702	707	712	717
Pawed	Paw ape	Pacify*	Реа-сир
		*	718
703 Up we go Pix go Pay a wig	708 Power	713 Epoch* Peach* Pouch*	Pocus Epicure
704	709	714	719
Pawk Powky* Ape awake	Pee wit Quixote	Peck Pick Quack	Epact
	•		•

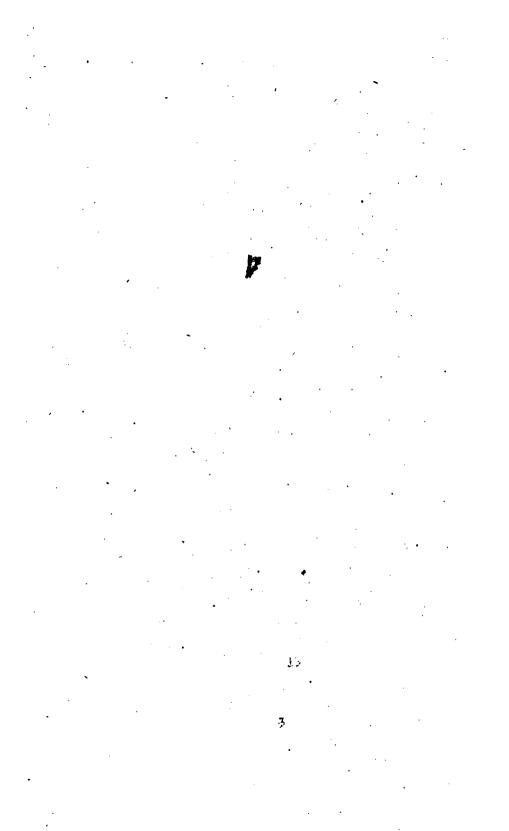
xxxvi

ART OF MEMORY.

w ~ ·	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	s t v W f 8 9 0
720	723	726	729
I paid away* Que a fox*	I paid aga	Paid in Pad on	I paid you too Pad it
721	724	727	730
I paid a boy* I paid a beau	I paid you Joe	Paid up Quoif up	Pig away*
722	725	728	731
Puff Quaff Paid a foe	Pay a fool	Quids	Pig boy* Peg a cow*

FINIS.





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